









# Graduate Catalog 2003-2005



#### Academic Calendar

Ohio University's academic calendar is available online at

http://www.ohio.edu/registrar/calendar.htm

#### Academic Fees (Graduate)

Ohio University's academic fees are available online at:

http://www.finance.ohiou.edu/receivable/tuitionfees.html

**Note:** Fees are subject to change without notice

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A membership list of Ohio University's Graduate Council is available at: http://www.ohio.edu/graduate/gradcoun.htm

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### Ohio University Graduate Catalog 2003–2005

The fees, programs, and requirements contained in this catalog are effective with the 2003 fall quarter. They are necessarily subject to change at the discretion of Ohio University. It is the student's responsibility to know and follow current requirements and procedures at the departmental, college, and University levels.

Ohio University is an affirmative action institution.

Ohio University does not discriminate on the basis of race, color, national origin, sex, disability, or age in its programs and activities. The following person has been designated to handle inquiries regarding the nondiscrimination policies: Assistant to the President, Office for Institutional Equity, Ohio University, Athens OH 45701, Telephone: 740.593.2620.

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### Ohio University Mission Statement

Ohio University is a public university providing a broad range of educational programs and services. As an academic community, Ohio University holds the intellectual and personal growth of the individual to be a central purpose. Its programs are designed to broaden perspectives, enrich awareness, deepen understanding, establish disciplined habits of thought, prepare for meaningful careers and, thus, to help develop individuals who are informed, responsible, productive citizens.

#### **Undergraduate Education**

Ohio University offers undergraduate instruction on both the Athens campus and the regional campuses. Undergraduate programs, designed to contribute to intellectual and personal development and career goals of students, emphasize liberal studies.

Undergraduate major programs, preprofessional, and professional programs prepare students for employment in a variety of careers and for continued study. Two-year technical and associate's degree programs, reflecting employment opportunities as well as the general career interests of students, are taught primarily at the regional campuses.

At the Athens campus, instruction is combined with residence life and other extracurricular programs in an effort to create a collegiate experience integrating learning and living.

#### Graduate and Professional Education

Ohio University offers graduate and professional education. The primary forms of activity are advanced and specialized courses of study, supervised practical experience, and research.

The essential concentration of faculty, material, and space resources dictates that the activity associated with graduate and professional education will be centered on the Athens campus. This activity is not limited to that campus; research and instruction are carried out at various locations.

### Scholarship, Research, and Creative Activity

Ohio University is a center for scholarship, research, and creative activity involving the creation, testing, and dissemination of knowledge, understanding, expressions, and technique.

As a public university, Ohio University has a particular responsibility to address societal issues and needs through such scholarship, research, and creative activity. The scholarly and artistic activity of the faculty enhances the teaching function at all levels of the student experience.

#### **Extended Community**

Ohio University serves an extended community. The public service mission of the University, expressed in such activities as public broadcasting and continuing education programs, reflects the responsibility of the University to serve the ongoing educational needs of the region. The regional campuses perform a critical role in serving this extended community.

The University has state-wide responsibility for an extended University program using independent study through correspondence.

It is the purpose of these extended University programs to serve a diverse range of educational needs, from professional groups requiring continuing courses of study related to the practice of their professions, to individuals desiring occasional or special interest study.

By service to the extended community, Ohio University contributes to cultural and economic development, health care, and to other human services.

Adopted January 15, 1977, and reaffirmed January 1988.

### A Commitment to Diversity

Ohio University is committed to promoting an atmosphere where understanding and acceptance of cultural and racial differences are ensured.

As President Robert Glidden stated in his 1995 State of the University Address: "A commitment to academic excellence carries with it the responsibility of seeing to it that Ohio University is a just and diverse community—that everyone who comes here has an equal opportunity to develop his or her talents to the fullest. Education is not well served by homogeneity; it is diversity that enriches learning and diversity that prepares our students for the realities of the world-especially the world of the future. We need to find more ways to engage the full range of abilities of all our people, and we need especially to attend to changes that will promote recognition and appreciation of accomplishments by women and minorities so that all persons in the University are equally respected and empowered."

Ohio University is bound morally, emotionally, and intellectually to pursue the realization of a vision of real community. As a result, it is committed to equal opportunity for all people and is pledged to take direct and affirmative action to achieve that goal. In upholding its commitment, Ohio University will not tolerate racism, sexism, homophobia, bigotry, or other forms of violations of human rights. Such actions are inconsistent with, and detrimental to, the values that we hold essential as an institution of higher learning. All students, faculty, and staff of Ohio University are expected to uphold the University's commitment to a just and diverse community and to take a leadership role in ensuring an atmosphere of equality.

### Inquiries

#### The University switchboard number is 740.593.1000.

#### Admission

Office of Graduate Studies, McKee House Telephone 740.593.2800

### Continuing Education, Independent Study, Workshops, and Conferences

Office of Continuing Education, Conferences and Workshops, Haning Hall Telephone 740.593.1770

#### **Curricula and Degree Requirements**

Graduate chair of the appropriate department

#### Housing

Housing Office, Chubb Hall Telephone 740.593.4090

#### **Osteopathic Medicine**

College of Osteopathic Medicine, Grosvenor Hall Telephone 740.593.4313, or 1.800.345.1560

#### Registration, Class Schedules, and Veterans Affairs

Registrar's Office, Chubb Hall Telephone 740.593.4191

#### **Regional Campuses**

Ohio University-Chillicothe 571 W. 5th St., Chillicothe OH 45601 Telephone 740.774.7200

Ohio University Eastern Campus 45245 National Road, W., St. Clairsville OH 43950 Telephone 740.695.1720

Ohio University–Lancaster 1570 Granville Pike, Lancaster OH 43130 Telephone 740.654.6711

Ohio University Southern Campus 1804 Liberty Ave., Ironton OH 45638 Telephone 740.533.4600

Ohio University–Zanesville 1425 Newark Road, Zanesville OH 43701 Telephone 740.453.0762

#### Contents

Inside front cover Graduate Council,
University Administration

- 2 Mission Statement
- 2 A Commitment to Diversity

#### **Guidelines and General Information**

- + Profile of Ohio University
- 4 Application and Admission
- 8 Schedule of Fees
- 10 Financial Aid
- Academic Policies and Procedures
- 1 5 Standards of Work
- 1 5 Grading Information
- 16 Master's Degrees
- 17 Doctoral Degrees
- 19 Registration
- 2 o Change Procedures
- 2 I Graduate Student Responsibility
- 2 I Late Registration
- 2 I Withdrawal from the University
- 2 I Transcripts
- 2 I Replacement Diploma
- 2 1 Academic Misconduct
- 2 Intellectual Property Policy
- 2 2 Research Using Human Subjects
- 2 2 Graduation and Commencement
- 2 3 Services for Students Listed alphabetically

#### **Colleges and Curricula**

- 3 o Academic Organization
- 3 2 Certificate Programs
- 3 3 Areas of Instruction
- 3.4 Arts and Sciences
- 8 3 Business
- 8 o Communication
- 101 Education
- I I 6 Engineering and Technology
- Fine Arts
- 153 Health and Human Services
- 182 Center for International Studies
- 189 Individual Interdisciplinary Programs
- 190 Lifelong Learning Programs
- 19 1 Osteopathic Medicine

#### **Appendix**

- 192 Departmental Faculty
- 200 Ohio Residency
- 202 Student Records Policy
- 204 Index

### Guidelines and General Information

You must be registered in any quarter in which you are receiving any service from the University or using its facilities and in the quarter in which you will graduate. Master's degree students must be registered for at least one graduate credit hour, doctoral students for at least two graduate hours.

# Profile of Ohio University

Ohio University, established in 1804, was the first institution of higher education in the old Northwest Territory. The total enrollment on the Athens campus is approximately 20,000, while the regional campuses enroll more than 8,900 additional students. The present graduate enrollment is about 3,500, of whom 2,300 are fulltime students. The full-time faculty numbers 1,056. There are more than 734 part-time faculty members and more than 1,500 graduate assistants, graduate staff assistants, graduate research assistants, and graduate teaching assistants.

On the graduate level, Ohio University offers master's degrees in nearly all its major academic divisions and doctoral degrees in selected departments. The College of Osteopathic Medicine offers a four-year professional program leading to the degree of Doctor of Osteopathic Medicine.

The city of Athens is located about 75 miles southeast of Columbus. The University offers a wide range of cultural activities to the University community and all of southeastern Ohio. Lecturers, poets, singers, dancers, films, and theater or music groups appear frequently on campus. Many events are free, though some have nominal charges.

The University is accredited by the North Central Association of Colleges and Secondary Schools and by the recognized professional accrediting associations identified with its major academic divisions. It holds membership in leading state and national educational and professional associations.

The University's academic calendar consists of three quarters of 10 to 12 weeks and a summer session with two 5-week terms.

## Application and Admission

To apply, submit to the Office of Graduate Studies the two application forms, two official transcripts from each postsecondary school attended (whether or not degree was earned), official test scores as required by the department, the \$30\* nonrefundable fee for application to a degree program, and any other pertinent information in support of your application. Nondegree and transient application is \$20\*; nondegree-todegree status, application to a second Ohio University graduate degree program, or reapplication to a degree program is \$10\*. Have letters of recommendation sent directly to the graduate committee of the department to which you are applying. Some departments request that application information be directed to the department. Please refer to the admission processes described in the individual department description elsewhere in this catalog.

\*Note: Fees subject to change without notice.

Copies of the above materials are forwarded by the Office of Graduate Studies to the department of your choice. The departmental graduate committee grants or denies admission and forwards the decision to the Office of Graduate Studies. Your file is reviewed for completeness, and a letter is sent to you indicating admission, admission pending fulfillment of admission requirements, or denial of admission.

Admission to graduate study is based on possession of a bachelor's degree from an accredited college or university and such factors as your undergraduate scholastic grade-point average (both overall and in the proposed graduate major), selection of courses, pattern of grades, recommendations, test scores, work experience, and other relevant matters. Each department gives appropriate weight to the factors pertinent to its academic field.

If you have a bachelor's degree from an unaccredited college or university, you usually will be required to supplement your undergraduate record with a satisfactory score on an acceptable standard college ability test.\*

Supporting evidence of your ability, in the form of the Graduate Record Examination, Graduate Management Admission Test, Miller Analogies Test, or other college ability tests, may be required.\* Consult the specific department about necessary test requirements.

Applications for admission, supporting credentials including official transcripts of all academic work, and the nonrefundable application fee (check or money order payable to Ohio University) should be received at least six weeks before registration for the quarter or summer term in which you wish to begin graduate study. International students should submit all application materials a minimum of nine months prior to the desired quarter of entry. Some programs have earlier deadlines for admission and financial support; see the program listing for deadlines.

All documents received by the University in connection with an application for admission become the property of Ohio University. Under no circumstances will they be returned or

forwarded to any agency or other college or university. Documents of students who are admitted to a graduate program but fail to enroll for the quarter for which they are admitted are destroyed. Materials will be held, however, for a maximum of one year if you notify the Office of Graduate Studies in writing of a postponement of enrollment. Documents of students who are denied admission are held for one year. Students wishing to reapply must complete a new application form, pay the reapplication fee, and submit any additional supporting documents required to complete their application.

All correspondence pertaining to admission to a graduate program should be addressed to the Office of Graduate Studies, Ohio University, Athens OH 45701-2979.

Special note for students in education: If you have earned a master's degree in education at Ohio University and plan to take additional work in education, you must reapply for admission through the Office of Graduate Studies.

\*Only original test scores reported by the testing agency are accepted as official. Please have your scres reported to the Office of Graduate Studies, Ohio University, Athens, OH 45701-2979. On the Athens campus, GRE registration materials can be obtained from the Office of Graduate Studies. Further information about the tests can also be obtained by contacting the test provider.

#### **Graduate Record Examination**

by mail: GRE-ETS, PO 8ox 6000, Princeton, NJ 08S41-6000

by phone: 1.609.771.7670 by Web: http://www.GRE.org/

#### **Graduate Management Admission Test**

by mail: GMAT Distribution & Receiving Center, 225 Phillips Blvd., Ewing, NJ

08628-7435

by phone: 1.609.771.7330 by Web: http://www.GMAC.com/

#### Miller Analogies Test

by phone: 1.800.622.3231 by Web: http://www.hbtpc.com/mat/ The MAT is available at Ohio University through Counseling and Psychological Services, Hudson Health Center.

#### Categories of Admission

Ohio University has four categories of graduate student admission: degree, nondegree, postbaccalaureate, and transient.

Any admission to a graduate program must be regarded as provisional until you have provided a final official transcript from your undergraduate institution showing receipt of the bachelor's degree, and transcripts from any other postsecondary school attended. You should submit transcripts before you are admitted to a program, but if this is not possible it is your responsibility to see that final official transcripts are on file in the Office of Graduate Studies no later than the end of your first quarter of registration in a graduate program. Failure to produce final transcripts will result in a registration hold being placed on your account and may result in dismissal.

#### Degree

**Unconditional Admission.** Students approved by the major department for unqualified admission to a graduate degree program are given unconditional admission. Only students on unconditional admission status are eligible for University-funded assistantships, fellowships, Office of Graduate Studies (OGS) stipends, and tuition scholarships.

Conditional Admission. Students who have some deficiency in the entrance requirements, such as a grade-point average below 2.5, may be approved by the department for conditional admission. Students in this category may achieve unconditional admission by satisfactorily completing a prescribed program to remove any academic deficiencies and attaining a 3.0 or better grade-point average on the first 15 hours of graduate course credit. The departmental graduate committee will specify whether undergraduate courses required as further preparation for admission will be taken for audit or credit. Grades earned in such courses may be used by the graduate committee in evaluating your capability for graduate work. Undergraduate or audited courses will not satisfy requirements for any graduate degree. You are eligible

for University-funded assistantships, fellowships, and scholarships only after you have received unconditional admission. You must maintain a 3.0 or better cumulative and term gradepoint average to retain University financial support.

#### Nondegree

To take graduate courses if you have no intention of working toward a graduate degree at Ohio University, apply for admission in the regular manner but as a nondegree student. Approval for such admission does not constitute admission to a degree program. Credit earned prior to admission to a degree program as a degree-seeking student cannot normally be applied toward a graduate degree at Ohio University. In exceptional cases the appropriate academic department will determine which courses, if any, that you take while in nondegree status may be applied subsequently toward degree requirements.

You may take no more than 18 hours of academic work, within a time limit of six years, as a nondegree student.

#### **Postbaccalaureate**

This status is applicable to the regional campuses for all quarters and to the Athens campus for summer only. The conditions of postbaccalaureate admission are the same as for nondegree graduate status: (a) admission status terminates after completion of 18 graduate hours, (b) admission to nondegree status does not constitute admission to a graduate degree program, and (c) credit earned cannot normally be applied toward a graduate degree at Ohio University. Some graduate courses are not open to students admitted to postbaccalaureate status. If in doubt about the acceptability of postbaccalaureate status for a specific course, check with the department offering the course.

#### Transient

A student currently working toward a graduate degree at another university

may earn graduate credit at Ohio University to be transferred to the other university.

You may be admitted to a transient status by submitting a transient student application, the appropriate application fee, and an official statement of good standing from the dean of the graduate school in which you are enrolled.

You must request permission each quarter to register at Ohio University as a transient student.

#### Undergraduates Taking Graduate Courses

Except for Honors Tutorial students and those who meet the conditions listed below, no undergraduate student may take a graduate course for credit. Honors tutorial students seeking to obtain graduate credit for courses must complete a Senior for Graduate Credit application as described below.

#### Senior for Graduate Credit

An Ohio University student who has not yet completed all requirements for the bachelor's degree may be eligible for graduate study as a senior. This privilege is normally granted for one quarter only. You must have an overall grade-point average of at least 2.5 and be within nine credits of completing all requirements for your bachelor's degree. Permission to take such courses does not constitute admission to a graduate degree program.

You may apply to take graduate courses carrying graduate credit by securing the written recommendation of the dean of your undergraduate college and the graduate chair of the departments offering the graduate courses. If you are admitted as a senior for graduate credit, you pay undergraduate fees and are not eligible for graduate assistantship or scholarship support. A \$10 application fee is charged for this privilege, and you must apply in advance of registration through the Office of Graduate Studies. This privilege may also be extended to a well qualified senior at another university who has nine or fewer credits to complete for the bachelor's degree.

### Early Admission to a Graduate Degree Program

A superior undergraduate student may seek early admission to a graduate degree program. You must have an overall grade-point average of at least 3.5 and have completed all undergraduate requirements, except the total credit-hour requirement, by the time of your entry into the graduate degree program. After obtaining the written recommendation of your department, the departmental graduate committee, and the dean of your undergraduate college, you may be admitted into a graduate degree program and enroll in graduate courses for graduate credit. You can use these courses to satisfy both graduate degree requirements and undergraduate total credit-hour requirements. You must apply for this privilege in advance of registration through the Office of Graduate Studies. If you qualify for early admission to a graduate degree program, you are eligible for graduate assistantship or scholarship support.

#### International Students

To be eligible for admission, international students must have attained high scholastic distinction and must possess an earned degree equivalent to a U.S. bachelor's degree, awarded by an accredited college or university.

Materials required for admission to Ohio University are the two application forms, the \$30 nonrefundable application fee, official test scores as required by the department, official transcripts from each postsecondary school attended, and any other pertinent information in support of your application. If transcripts are not in English, they must be translated and signed and certified as true copies by the registrar of the institution or an official of the country's consulate. You should submit final, official transcripts before you are admitted to a program, but if this is not possible it is your responsibility to see that final official transcripts are on file in the Office of Graduate Studies no later than the end of the first quarter of your program. Failure to produce final transcripts may result in dismissal.

All prospective students whose native language is not English must submit evidence of proficiency in the English language. You must send official results of the Test of English as a Foreign Language (TOEFL) to the Office of Graduate Studies to complete your application.

It is recommended—required by some departments—that you score 550 or above on the paper TOEFL, or 213 or above with essay of 5 or above on the computer TOEFL. If you achieve scores this high or higher, you might not have to study English before being admitted as a full-time graduate student. A score of 510-549 on the paper TOEFL, or 180-212 with essay of 4 or above on the computer TOEFL, indicates that you will need to take at least one quarter of part-time English study; a score of 450-509 on the paper TOEFL, or 133-179 with essay of 3.5 or above on the computer TOEFL, indicates that two or more quarters of English study may be necessary; and a score of 449 or below on the paper TOEFL, or 132 and below on the computer TOEFL, indicates that at least three quarters of intensive English may be required.

You are required to be tested by the Ohio Program of Intensive English (OPIE) to determine your level of proficiency. This on-campus test is the criterion for English proficiency evaluation regardless of other test scores that you may have submitted with your application materials. The results of this test will determine if you will be required to take English courses in the Ohio Program of Intensive English. Students who are required to enroll in OPIE English courses are financially responsible for all associated tuition and fees. University financial aid cannot be used to cover these expenses.

Only after you have passed the oncampus English proficiency test or satisfactorily completed the Ohio Program of Intensive English and enrolled in your graduate program are you eligible for Ohio University–funded assistantships, fellowships, and scholarships. To be considered for a teaching stipend, all prospective international graduate students who will be responsible for classroom or laboratory instruction and whose native language is not English must submit their scores on the Test of Spoken English (TSE; Educational Testing Service, Princeton NJ, 1982). You must score 60 on the TSE to be offered a teaching stipend. In addition to the TSE, you must take the SPEAK test after you arrive at Ohio University if you are offered a stipend that requires instructional responsibility.

International applicants must submit evidence of the financial responsibility that is stated on the Affidavit of Financial Support. In the event that you receive a University-funded assistantship, fellowship, or scholarship upon admission, that financial assistance will be cancelled if you do not demonstrate English proficiency after being tested by the Ohio Program of Intensive English upon your arrival at Ohio University.

The Immigration and Naturalization Service requires that international students, while in the United States, be full-time students in the first three quarters after arrival. You may then take a vacation in the next quarter as long as you intend to register in the quarter after the vacation. You must be making reasonable progress toward the completion of your degree. In the event that a problem should arise with enrollment, you are required to consult with your advisor and the international student advisor.

#### **Faculty and Administrators**

All Ohio University faculty and administrators on full-time presidential contract, except senior administrators (vice presidents, vice provosts, associate provosts, and deans), are eligible to apply for admission to a graduate program or to nondegree status. The associate provost for graduate studies and the Graduate Council will review all applications for potential conflict of interest. See the stipulations regarding conflict of interest in the

Faculty Handbook, Policy IV-E. If the Graduate Council determines that a conflict exists, the faculty member or administrator shall not be admitted to a graduate program. It is the responsibility of the associate provost for graduate studies to see that this review takes place at the earliest possible date.

If you are a full-time faculty member or full-time administrator at Ohio University who is admitted to a degree program or to nondegree status, you may normally register for no more than eight hours per quarter. To register for 9 or 10 hours, you must have written approval from the graduate chair of your academic program and from the administrative supervisor for your employee position. You may not receive a graduate stipend. Course loads taken during breaks in regular employment, however, such as summers for ninemonth faculty, will be limited only by Graduate Catalog regulations. See the stipulations regarding residency requirements in this catalog and the Policy and Procedure Manual, No. 40.015.

If you are currently in a graduate degree program and are offered a presidential contract appointment, your situation will be reviewed by the associate provost for graduate studies and the Graduate Council at the earliest possible date. The Graduate Council will determine whether conflict of interest or unfair competition would result from your dual status as a student and a presidential contract employee that might affect your academic performance and evaluation. If the Graduate Council determines that such a conflict would exist, they will inform you that you may not continue in your graduate program if you accept the presidential contract appointment.

It is your responsibility to notify the University of your employment on the Graduate Admissions Application. If you are a current graduate student and are offered a presidential contract appointment, it is your responsibility to notify the associate provost for graduate studies of that appointment.

### Schedule of Fees

Payment of all assessed fees at the times designated is prerequisite to official enrollment. Checks and money orders should be made payable to Ohio University in the exact amount of the fees. Postdated checks are not acceptable. Checks not paid upon presentation to the bank will automatically cancel any receipts given and result in assessment of penalties. It is important that you retain all fee receipts.

Ohio University reserves the right to make, without prior notice, any fee adjustments that may become necessary. Graduate students carrying more than eight hours are eligible for the Monthly Payment Plan, which equalizes the academic year's fees into nine monthly payments.

#### **Registration Fees**

The comprehensive registration fee covers the instructional fee, general fee, and a tuition surcharge for nonresidents. See the inside front cover for the schedule of registration fees.

Current registration fees are available online at:

http://www.finance.ohiou.edu/receivable/tuitionfees.html

#### Miscellaneous Fees\*

Admission application filing fees

- \$30 For a degree program
- \$20 For nondegree, workshops, transients
- \$10 For nondegree-to-degree status
- \$10 For change of major or second master's
- \$10 For reapplication to a degree program

  Late registration fee—varies
  (check quarterly Schedule of Classes)
- \$5 Duplicate official forms, fee receipts, bill statements, grade reports, etc.
- \$45 Application for graduation, master's degree
- \$50 Application for graduation, doctoral degree
- \$5 Reapplication for graduation, master's or doctoral degree
- \$5 Transcript of record

#### **Insurance**

Domestic Students: All domestic students taking seven or more credit hours must carry health insurance if they are enrolled on the Athens campus. An accident and sickness insurance plan (Medical Plan I) designed to supplement the care provided by the Student Health Service is automatically billed to all students meeting this guideline. Domestic students can complete a waiver declaration, if they have comparable coverage. Students must submit the waiver option statement printed on the fee bill or go to the Bursar's Office in Chubb Hall to complete a waiver card. Domestic students also have the option of upgrading their level of insurance coverage by electing to take Medical Plan II coverage. This entails the payment of a higher premium and must be arranged through the Hudson Health Center Insurance Office (740.597.1816). Dependent coverage is also available through this office.

International Students: All international students taking one or more credit hours must carry the Ohio University health insurance if they are enrolled on the Athens campus. An accident and sickness insurance plan

<sup>\*</sup>These fees are nonrefundable and subject to change without notice.

(Medical Plan II) is automatically billed to all students meeting this guideline. Only those international students with government sponsors that provide acceptable health insurance can apply for a waiver of the University health insurance. Waivers of health insurance for international students may only be granted by the Office of International Student and Faculty Services. International students are also required to purchase insurance coverage for their dependents, and must make arrangements for this when they arrive to begin their studies.

#### Refund of Fees

The official University policy on the refund of registration fees is (1) official withdrawal from the University prior to the first day of classes entitles you to a refund of 100 percent; (2) withdrawal from the University during the first 15 days of the quarter (see the academic calendar) entitles you to a refund of 80 percent if fees were paid in full. If you are on the Monthly Payment Plan, you will have incurred a charge of 20 percent of registration fees with this amount being subtracted from your registration payments to determine the refundable amount: (3) withdrawal from the University after the first 15 days of classes entitles you to no refund; (4) any student withdrawing from the University while owing the University money is considered to be indebted to the University for that amount.

If you drop hours by change order prior to or during the first 15 days of the quarter, when such changes result in a reduction of fees, you are entitled to receive a 100 percent refund of the reduction. Changes made after the 15th day of the quarter will result in no refund. Refunds are issued 30 days after the date of withdrawal from the University. Refer any questions to the Registrar's Office.

#### **Ohio Residency Guidelines**

Since Ohio University assesses your tuition costs based on your status as an in-state or out-of-state resident, the following general information is included to help you determine your residency status. The complete policy on Ohio residency is included for your reference in the appendix at the back of this catalog.

In general, you pay in-state tuition if you are a permanent resident of Ohio, which means that you-or your parent(s), guardian(s), or spouse if you are a dependent—have lived in Ohio for 12 consecutive months or more preceding your enrollment at Ohio University. Evidence of Ohio residence includes proof that: (1) you (or your parents, guardians, or spouse) are totally self-supported from income derived from within the state of Ohio and have subjected that income to Ohio taxation; (2) you (or your parents or guardians) are eligible to receive Ohio state welfare benefits; and (3) you (or your parents or guardians) are a resident of the State of Ohio for all other legal purposes (i.e. driver's license, voter's registration, car registration).

It is your responsibility to report a change of address and/or residency from an Ohio resident to a non-Ohio resident at the Office of Student Records. If your residency has changed to an Ohio resident, you must file a residency petition (complete with documentation to verify your statements) with the Office of Graduate Studies. No change of residency can be made until the residency petition has been approved by the Director of Graduate Student Services. The residency petition must be filed before the last day to register for class in order for it to be effective for that quarter. Residency decisions are not retroactive to previous quarters. You may direct questions concerning residency to the Office of Graduate Studies.

#### Financial Aid

The three major forms of financial support for graduate students are assistantships, Office of Graduate Studies (OGS) stipends, and tuition scholarships. These are granted by the individual schools or departments, and application for this financial assistance is made as part of the application.

#### **Graduate Appointments**

Approximately 1,500 graduate, research, and teaching assistantships and OGS stipends are available for graduate students in degree programs at Ohio University. Students who wish to pursue a master or a doctoral degree are selected for these appointments on the basis of scholarly merit.

Graduate contracts normally become effective the first day of each quarter and end on the official closing date of the quarter. Individual schools or departments may, at their discretion, request that newly appointed assistants report for orientation up to a week prior to the beginning of the quarter.

The assistantship provides a stipend for services as prescribed by the individual school or department and requires a minimum academic course load of 12 graduate credits a quarter. The assistantship usually includes a tuition scholarship for the length of the contract. The stipends vary from academic area to academic area, but generally range from \$6,150 to \$12,000 for three quarters (i.e., from September to June) and \$8,000 to \$15,000 for a 12-month appointment. Contact the individual school or depart-ment for details on assistantships and tuition schoolarships.

Students who have assistantships generally fulfill academic responsibilities and serve as prescribed by the school or department. There are three types of assistantships: Teaching Assistantships (TA), Graduate Assistantships (GA), and Research Assistantships (RA). Teaching assistants generally have teaching

related duties, graduate assistants have administrative and non-teaching duties, and research assistants work on research or creative projects for the school or department.

Some graduate assistants are funded from non-academic department resources. These assistants engage in duties varying from residence hall directorships to service in the library and University administrative offices.

Appointment of graduate resident directors and graduate assistant resident directors are made on the recommendation of the director of residence life and are available to single or married men and women. Compensation includes a furnished apartment and board (when the dining halls are operating) for the appointee (and for his or her family, if applicable) and a stipend of \$9,600 plus a tuition scholarship for graduate resident directors. Graduate assistant resident directors will have the same compensation and a stipend of \$5,600 plus a tuition scholarship. The appointment requires payment of the general fee and recreational facilities fee each quarter. The graduate resident director and graduate assistant resident director supervise functions of the residence hall. Apply for these appointments by letter and submission of your vita to the director of residence life.

Office of Graduate Studies (OGS) stipends are an alternative form of graduate student award offered by some departments or schools. These awards are structured to approximately cover tuition costs. They require six hours of service per week each quarter

of the contract. This service is valued at \$600. Students who are awarded OGS stipends also receive a partial tuition scholarship, which when combined with the OGS stipend service value, approximately covers tuition costs.

Students who are awarded an OGS stipend/scholarship are required to register for an academic course load of a minimum of 15 graduate credits per quarter.

Tuition scholarships may be available for the summer quarter to students who have a graduate appointment for the spring quarter preceding or the fall quarter following the summer quarter. You must carry a course load of 15 hours and pay the general fee for summer quarter.

The graduate appointment will be discontinued if your cumulative and/or term grade-point average as a graduate student at Ohio University falls below 3.0 (on a 4.0 scale). Some schools or departments require a higher average.

The graduate appointment may be discontinued if duties are not performed satisfactorily as defined by the immediate supervisor or department/school.

Graduate students seeking continuation of stipend and scholarship support must follow all departmental policies and procedures pertaining to renewal of that support. Additionally, Graduate Council guidelines state that graduate students holding graduate appointments written for an academic year must receive notice of renewal or nonrenewal of that appointment no later than the end of spring quarter. This provision does not apply to contracts terminated early or not renewed for academic or service performance reasons. In such cases, no prior notification is required.

Graduate students holding graduate contracts written on a quarterly basis must receive notice of renewal or nonrenewal of contract at least one quarter before the end of that contract period. Graduate students holding spring quarter appointments must be notified no later than the end of

the spring quarter of renewal or nonrenewal for fall quarter. This provision does not apply to contracts terminated early or not renewed for academic or service performance reasons. In such cases, no prior notification is required. Notification on summer quarter appointments can be made as early as practicable

Ohio University is a signatory to the Council of Graduate School's Resolution Regarding Graduate Scholars, Fellows, Trainees and Assistants. Full text of the resolution can be found at http://www.cgsnet.org/pdf/resolution.pdf.

#### **Time Limits**

Time limits for financial support of graduate students through assistantships, fellowships, OGS stipends or scholarships are determined by the school or department responsible for the individual program. Generally, the University will provide stipend support only with the approval of the dean of the college if you have enrolled in more than 260 hours of graduate-level credit, defined as graded course credit taken at Ohio University and credit earned for work performed prior to admission to Ohio University. This constraint does not apply to stipends provided through research grants or other non-university funding sources.

### Traineeships and Fellowships

Ohio University has a limited number of named fellowships such as the Hiram Roy Wilson Fellowships in Biological Sciences, Chemistry, and Environmental and Plant Biology. In addition, the following fellowships are awarded by the associate provost for graduate studies, with the advice of the Graduate Council: the John Cady Graduate Fellowship, the Donald Clippinger Graduate Fellowship, the Claude Kantner Graduate Fellowship, the Anthony Trisolini Graduate Fellowship, and the Office of Graduate Studies Fellowship. Stocker Fellowships are available in the Russ College of Engineering and Technology. The University also participates in available federal fellowship programs.

The African Studies Program and the Southeast Asia Studies Program at the Center for International Studies offer Foreign Language and Area Studies (FLAS) fellowships to U.S. residents who demonstrate a strong Africa/Southeast Asia career and/or research interest. If the applicant has no previous graduate study, Graduate Record Examination (GRE) scores are required. Interest in applying for FLAS funding should be indicated on the application to the Center for International Studies.

Additional fellowship opportunities may be found at the Graduate Studies Web site:

http://www.ohio.edu/graduate/

#### **Tuition Scholarships**

Full or partial tuition scholarships are available in conjunction with an assistantship, fellowship, OGS stipend, or, under limited circumstances, as a separate award. These are granted on a competitive basis to incoming graduate students who have maintained high undergraduate averages, or to graduate students who have maintained at least a 3.0 graduate grade-point average. These scholarships require full-time study (12 graduate credits per quarter for RA, TA, or GA; 15 graduate credits per quarter for OGS stipends, fellowships, or tuition scholarships) and payment of the general fee each quarter. Contact the graduate chair of your academic area for information.

Tuition scholarships may be available for the summer quarter to those students who have a scholarship for the spring quarter preceding or the fall quarter following the summer quarter. You must carry an academic course load of 15 hours and pay the general fee for the summer quarter.

The tuition scholarship will be discontinued if your academic average as a graduate student at Ohio University falls below a 3.0 (on a 4.0 scale). Some schools or departments may require a higher average. Tuition scholarships are not available to students who have enrolled in more than 260 hours of graduate-level courses as described in the preceding section.

### Office of Student Financial Aid and Scholarships

Financial aid available to graduate students through the Office of Student Financial Aid and Scholarships consists of loan assistance and employment opportunities.

#### **Need-Based Assistance**

To apply for need-based aid, complete the Free Application for Federal Student Aid (FAFSA). You will be notified of your eligibility by the Ohio University Office of Student Financial Aid and Scholarships. The need-based programs available to graduate students are: (1) the William D. Ford Federal Direct Student Loan, (2) the Federal Perkins Loan, and (3) Federal Work-Study (FWS). March 15 is the first-priority deadline date that has been set by the Office of Student Financial Aid and Scholarships for consideration for campus-based aid—the Federal Perkins Loan and Federal Work-Study. The Federal Perkins Loan and Federal Work-Study are awarded differently than the Federal Direct Student Loans. The funds are sent directly to Ohio University to be awarded to the most needy students. Ohio University awards the funds directly, and funding for these programs is limited. Late applicants (after March 15) most likely will not receive awards for either the Federal Perkins Loan or Federal Work-Study.

#### Cost of Attendance

Each year, the Ohio University Board of Trustees determines the fixed costs (tuition and fees, plus an out-of-state surcharge, and room and board rates) for graduate students who live on campus. Variable costs consist of books and supplies, transportation, personal, and miscellaneous expenses. Variable expenses are estimated and are based on the Consumer Price Index (CPI), survey data of local housing (offcampus apartments), and estimated food costs. You must provide documentation in writing to the financial aid office for individual consideration. The combined fixed and

variable costs make up your total cost (budget) for the academic year.

#### **Determining Eligibility**

Graduate students are considered independent. You (and your spouse, if you are married) are expected to assist in financing your education costs. Your expected contribution is calculated from your previous year's earnings, untaxed income, benefits, and a percentage of personal savings and assets. The following equation is used to determine financial need:

- Cost of education (budget)
- Minus expected student contribution
   Financial need

#### **Award Package**

After the FAFSA need analysis and other documents have been received and reviewed for accuracy (verified if applicable), an award offer is made to all eligible applicants. The award package can be a combination of gift assistance (fellowships, scholarships, graduate teaching/research assistantships, etc.), federal loans, and employment to offset costs. Not all students receive all types of aid, but in general, an attempt is made to balance gift aid (grants and scholarships) with self-help aid (employment and loans) while working within the limits of available funds and your eligibility. All gift aid received from all other sources must be reported when applying for Federal Direct Student Loans. Applying and having your results at Ohio University before the March 15 priority date makes you likely to receive a more attractive package than those who apply later.

#### **Notification of Aid Offers**

All applicants who are eligible for aid will receive notification from the financial aid office. Financial Aid Award Letters will be sent by mail to your permanent address or local address or will be available online via the Office of Student Financial Aid and Scholarships Web site.

#### **Award Disbursements**

Federal aid recipients must be officially enrolled through the Registrar's Office and fulfill all other requirements (financial aid transcripts, verification of the FAFSA data, etc.) before disbursement of aid.

Disbursement of funds will vary depending on the type of financial aid awards you have been offered. The Federal Perkins Loan requires a promissory note to be signed before the funds can be disbursed. The Federal Direct Student Loan (FDSL) requires a signed Master Promissory Note, completed Electronic Master Promissory Note, or online loan confirmation prior to disbursement of funds. Federal Work Study awards are not credited to your account because the award must be earned before being paid. You will receive a FWS payroll check every two weeks for the hours worked and approved by the hiring department for the pay period. Total financial aid credits greater than the University charges will result in a refund being generated in the amount of the excess funds. Refunds will be mailed to your local address or direct deposited to your bank account to assist you in meeting other expenses related to your education. Consult the Schedule of Classes for more detailed information concerning actual dates of disbursement for each quarter.

All first-time FDSL borrowers must complete Entrance Loan Counseling prior to loan disbursement.
Additionally, Exit Counseling must be completed prior to graduation. These requirements can be met through the Direct Loan Web site at: http://www.dlssonline.com/.

#### **Eligibility Requirements**

To receive federal campus-based aid and Federal Direct Student Loans, graduate students must be enrolled at least half time (minimum of five graduate credit hours) per quarter. In certain circumstances, a student's department may determine that a graduate internship or practicum that is required for a student's degree is the equivalent of being enrolled half time. This definition of half-time enrollment

must be used for all students in the same program and must be used for all student financial aid related purposes. A Graduate Internship/Practicum Verification Form must be completed by the department certifying the student's eligibility.

All Title IV federal aid recipients must maintain satisfactory academic progress as defined by the financial aid office and the University.

All federal aid recipients must comply with financial aid office procedures for adjusting overawards if the total federal aid received exceeds the financial need.

### Satisfactory Academic Progress Standards

Federal regulations require that all financial aid recipients meet Ohio University's satisfactory academic progress standards: (1) minimum credit hours earned for the appropriate enrollment; (2) maximum time frame during which a degree or certificate must be granted; and (3) minimum 3.0 cumulative g.p.a.

Minimum credit hour standards require you to earn a minimum number of hours based on your enrollment status. As a graduate student, the minimum credit hours required are: full-time= nine credit hours, half-time=five credit hours. Maximum time frame standards (MTF) are determined by your enrollment status. Federal regulations allow a student to be eligible to receive aid up to 150% of the time that it normally would take to complete a degree. For graduate students to remain eligible, they must complete their program by the time their maximum time frame value reaches 9.00 quarters. Once your MTF total reaches 9 quarters, you are no longer eligible to receive Title IV and selected other types of financial assistance, regardless of periods during which you received no financial aid. Students enrolled in programs requiring nine quarters of study (i.e. fine arts) should contact the financial aid office. Also, a 3.0 minimum grade point average must be met by the end of the second

academic year (spring quarter) of enrollment.

#### **Student Loans**

Student loans are playing an increasingly significant role in financing postsecondary education. Because of the favorable terms and conditions of educational loans, you should not be hesitant to borrow as an investment in your future. On the other hand, loans represent debts that must be repaid, and failure to repay can result in substantial penalties. The federal government has expanded the limits on these vital loan programs to assure that students will have access to and a choice among educational institutions. All applicants for student loans must file a Free Application for Federal Student Aid (FAFSA) to determine their eligibility.

#### The William D. Ford Federal Loan

is a federal loan for students enrolled at least half time in a degree-granting or certificate program at a participating postsecondary institution. All applicants for the William D. Ford Federal Loan must file a Free Application for Federal Student Aid (FAFSA) to determine their eliqibility.

The Federal Direct Subsidized Student Loan maximum for graduate students is \$8,500 per academic year. To qualify for the Subsidized Federal Direct Student Loan, you must demonstrate unmet need after other types of assistance, such as tuition scholarships, fellowships, research and teaching assistantships, and graduate research assistantships, have been considered. Eligibility is determined by the Federal Methodology need analysis on the FAFSA and must not exceed the difference between the cost of education (budget) minus the expected family contribution and other aid

# The Direct Unsubsidized Loan may be available if you do not qualify for the maximum Direct Subsidized Student Loan. You are responsible for the interest, and if you choose not to pay the interest while you attend

estimated to be made available.

school it will accrue on the loan

principal. Interest rates for Direct Subsidized and Unsubsidized Loans are variable and will not exceed 8.25 percent. The interest rate changes annually on July 1 and is equal to the rate on 91-day Treasury Bills plus 3.1 percent.

Graduate students may be eligible to borrow up to \$10,000 in additional Direct Unsubsidized Loans. All loan proceeds are disbursed in equal installments by term. Total financial aid credits minus University charges will result in a refund, which is mailed to your local address.

Loan repayment may be deferred for certain conditions, and loan consolidation is possible under the Reauthorization Act. If you are a first-time borrower, you will be required to complete Entrance Counseling regarding your rights and responsibilities. You also must complete Exit Counseling once nearing completion of your program or withdrawal from the University.

Ohio University Loans are institutional funds that are made available to students on a temporary basis to provide cash while waiting for disbursement of financial aid or earnings from employment. You must complete a one-page loan application and have it approved before a loan check is issued. If you are in default on previous Ohio University loans or federal loans, you are not eligible to receive a new institutional loan. All borrowers are charged a \$5 processing fee. An interest rate of 9 percent also is charged if your source of repayment is not financial aid. An Ohio University short-term loan must be repaid during the same quarter in which it is borrowed.

#### **Employment Opportunities**

Centralized Student Employment
Services was established by Ohio
University to provide job opportunity
information for all students in a central
location on campus in the financial aid
office. The service assists in hiring
students for part-time jobs, maximizes
employment opportunities and job
placement, and coordinates student
employment policies and procedures.

The financial aid office serves as an employment clearinghouse for job posting and referrals for all hiring departments at Ohio University (Athens campus) and for private (off-campus) employers as well. When new positions are available or vacancies occur, all employment opportunities for students are posted at http://www-sfa.chubb.ohiou.edu/and on our jobs board.

#### **Graduate Assistance**

Recipients of graduate awards in the form of assistantships (Graduate, Research, Teaching), tuition scholarships, and fellowships, will be reported to the financial aid office by the Office of Graduate Appointments. All tuition scholarships will be included as part of the aid package when calculating federal need-based aid, if you are eligible. If you receive a loan for summer quarter and later receive a graduate scholarship, you may be considered overawarded according to federal guidelines. To avoid an overaward, notify the financial aid office of all additional resources (current and estimated, when possible) when applying for the Federal Direct Student Loan. All overawards are adjusted by reducing the loan first and Federal Work Study as a last resort.

#### **Financial Aid Services**

Services are available to students on a daily basis between 8:30 a.m. and 4:30 p.m. Summer, winter, and spring break hours may vary slightly. You also may choose to schedule an appointment with your counselor (counselor assignments are made alphabetically by your last name). Emergencies or schedule conflicts may be accommodated as needed. Some of the services provided by the counselor are confirmation of financial aid for preregistration, review of financial need and eligibility, and review of policies and procedures for different financial aid programs.

Federal regulations and institutional policies are subject to change without notice. The financial aid office will attempt to keep you updated through various media on campus, written notices, or e-mail. It is important that you update your permanent and local addresses with the Registrar's Office and read your e-mail regularly to avoid delays that may be costly.

For more detailed information on financial aid programs, contact us: Office of Student Financial Aid and Scholarships, Chubb Hall 020; telephone 740.593.4141 (8:30 a.m.–noon, 12:30 p.m.– 4:30 p.m.); fax 740.593.4140; e-mail financial.aid@ohiou.edu.; Web http://www-sfa.chubb.ohiou.edu/

### Academic Policies and Procedures

#### Standards of Work

Conferral of either a master's or doctoral degree requires at least a B (3.0) grade-point average (g.p.a.). The g.p.a. in formal coursework is computed separately from the average in research, thesis, and dissertation credits to determine eligibility for graduation. A g.p.a. of at least B (3.0) is required in each category. No grade below C (2.0) can be used to satisfy any degree requirement. Departments may establish more rigorous standards.

All graduate students are expected to maintain at least an overal! B (3.00) grade-point average on a continuing basis. Should you achieve less than an overall B (3.00) grade-point average, the office of the dean of the college in which you are enrolled will solicit a written statement from your departmental graduate committee to justify your continuation in the program.

#### **Grading Information**

Academic work at Ohio University is evaluated on the following grading system: a grade of A equals 4.00; A- equals 3.67; B+ equals 3.33; B equals 3.0; B- equals 2.67; C+ equals 2.33; C equals 2.0; C- equals 1.67; D+ equals 1.33; D equals 1.0; D- equals 0.67; and F equals 0.0.

The basis for determining your scholastic standing is the grade-point average (g.p.a.). This average is determined by dividing the total number of grade points you have earned by the total number of guarter hours of credit you have attempted. For example, if you have earned a B (3.0) and an A (4.0) in each of two fivehour courses, first calculate the number of grade points by multiplying the number of hours in each course by the point value for that grade (5x3=15 and 5x4=20). Divide the total number of grade points by the number of hours attempted (35÷10=3.5). Your g.p.a. after completing the two courses would be 3.5. G.P.A. is calculated on all attempts at all courses numbered 500 and higher. This means the original grade in a course that is retaken is not dropped from the cumulative g.p.a.

Your g.p.a. is figured only on credit hours in courses for which you receive either letter grades, an FN (failure never attended), or an FS (failure stopped attending). FN and FS have the same value as an F.

The following grades also may be recorded: Credit (CR) is usually awarded for satisfactory completion of seminars, research projects, and thesis or dissertation credit. You may receive a grade of Progress (PR) in courses that are not yet complete or that extend over more than one quarter. Grades of CR or PR are not used in computing your grade-point average. An Incomplete (I) indicates that you have made progress in a course but have not finished the work required to receive a letter grade. These hours are not counted in quarter hours attempted, hours earned, or quality points until a letter grade is reported. If neither a letter grade nor notification from the instructor for an extension of time is received by the Office of Student Records, the I reverts to an F letter grade six weeks into the next quarter you are enrolled. Requests from the instructor for an extension of time beyond six weeks cannot exceed the end of the next quarter enrolled.

Any remaining Incompletes will be calculated as F in determining your eligibility for graduation.

Determination of appropriate use of letter grades, CR, PR, or I is made by the department and is recorded in the Office of Student Records.

A grade of **No Report (NR)** means that the instructor has not submitted a grade or that there has been a processing error. Check with the instructor; if a grade was submitted, go to the Office of Student Records to learn what is necessary to clear up the problem.

An Administrative Incomplete (I\*) is given by the Office of Student Records when you fail to drop officially a course for which you have registered. Until removed, an Administrative Incomplete is computed as an F in calculating the grade-point average. \*Editor's note: This grade is no longer used; it appears here as historic information/reference only.

**WP/WF-Withdrawal Pass/Withdrawal Fail** is given when a course is dropped after the 15th day of the quarter. This grade does not count in the g.p.a.

**FN-Failure Never Attended** is given when you register for a course that you do not attend or officially drop. It counts as an F in your g.p.a.

**FS-Failure Stopped Attending** is given when you stop attending but do not officially drop a course for which you registered. It counts as an F in your g.p.a.

Removal of FN or FS from the record (treating the course, for tuition and grade purposes, as though it had been dropped by the 15th day of the quarter) requires action by the late course withdrawal review panel or the office of the dean of the college in which you are enrolled.

Graduate level courses (500 and higher) may not be taken with a Pass/Fail grading option.

#### Master's Degrees

A minimum of 45 graduate credits is required for conferral of the master's degree. You may not have more than 12 credits with a CR grade exclusive

of practicum, internship, research, and thesis hours applied to your minimal credit requirements. Additional credits may be required by individual departments. You should develop a program of study approved by your advisor and the departmental graduate committee early in your first graduate guarter to ensure that you satisfy all degree requirements in the most efficient manner possible. Since graduate work implies advanced study and some degree of specialization, a certain amount of undergraduate preparation in the subject or field of study is presupposed before you may undertake graduate study in that subject or field.

In most departments a minimum of 27 undergraduate credits is required in the major area. Refer to the requirements listed by each program. It is your responsibility to ascertain whether a period of residence on the Athens campus is required in your major and to plan a program of study accordingly by consulting with your advisor and departmental graduate committee. A comprehensive examination may be required, the nature and timing of which is determined by the department.

#### **Thesis Requirement**

If you are in a thesis program, you will prepare the thesis under the guidance of your thesis director on a subject in the field of your major work (see "Restricted Publications of Theses or Dissertations"). The thesis provides an opportunity for you to formulate and express the results of research and study. You may meet the thesis requirement by presenting the results of a creative activity in literature, music, fine arts, or industrial arts, together with a written essay indicating the purpose, procedure, problems, and bibliography involved in the work. Each department prescribes the specific style manual to be followed by its students. You and your thesis director are responsible for maintaining accepted standards of grammar, sentence structure, punctuation, form, and scholarly style in the thesis. A pamphlet, "Format for the Presentation of Theses and Dissertations," is available in the college deans' offices. This booklet contains regulations regarding type, margins, quality of

paper, and other aspects, as well as detailed directions for submitting the finished thesis. If you are writing a thesis, you must obtain from your dean's office the current "Format" and the printed list of quarterly deadlines for graduation.

After the thesis has been approved by your thesis committee, thesis director, and dean, two copies are forwarded to Alden Library. In addition, one copy is retained in your department. The copies are bound and cataloged; one copy is placed in Archives and the other in the stacks. The thesis is considered a public document and made available to the public in the same manner as any other document cataloged within the University library. If you wish, you may submit a copy of the thesis to University Microfilms International for microfilming and entry into electronic databases.

Graduate students completing a thesis have the option of submitting their thesis in an electronic rather than paper copy format. A pamphlet titled "Guidelines for Preparation of Electronic Theses and Dissertations" describes this option. The pamphlet is available in the Office of Graduate Studies (McKee House). Students wishing to explore this option should contact the Office of Graduate Studies. Theses submitted electronically are available through OhioLink. A single paper copy is bound and placed in the library.

#### **Oral Thesis Examination**

An oral thesis examination is required of all students in a thesis program. The examining committee is composed of the director of the thesis (as chair) and two or more additional faculty members. You and your thesis director, in consultation with members of the examining committee, set a time and place for the examination. You must present final copies of the thesis to members of your examination committee at least two weeks before the date of your oral examination to allow adequate review of the manuscript. Results of the examination are reported to the Office of Graduate Studies and the Office of Student Records as soon as final approval of the thesis is given.

#### **Nonthesis Option**

Several departments have master's degree programs with a nonthesis option. Consult with your advisor and carefully consider your career goals in deciding between a thesis or nonthesis option. Many academic areas regard a nonthesis master's program as a terminal degree program.

#### **Transfer of Credit**

You may transfer a maximum of 12 guarter hours of graduate credit from an accredited University to a master's degree program at Ohio University, providing the credits to be transferred are designated graduate credit at the institution where taken, are letter graded B or better; were earned in the past five years; are applicable toward an advanced degree at the institution where taken; and were earned in courses taught by members of that institution's graduate faculty. Credits requested for transfer cannot have benn used to satisfy requirements for completion of another degree. Courses equivalent to those at Ohio University cannot be transferred for credit and also be taken for credit at Ohio University. Credit is not accepted for courses taken by correspondence. Any request for transfer of credit must be recommended by your advisor and departmental graduate committee before final review and acceptance by your dean's office. No letter grades will appear on the transcript for transferred courses, nor will they be calculated in your grade-point average.

#### Time Limit

The maximum time allowed between the date when you first initiate graduate study toward a master's degree and the date when you complete the requirements for the master's degree is six calendar years. Any master's degree program that requires more than 60 hours may increase the six-year time limit to seven years with the approval of the Graduate Council. Check with the Office of Graduate Studies or your graduate department to verify the time limit for your graduate program. If you do not complete your requirements within the time limit, you may be permitted to

continue graduate study only if exceptional circumstances are associated with the delay.

The dean of your college may grant a one-time one-quarter extension for the guarter immediately following the final quarter of the time to degree. If circumstances require an extension of time beyond the one-quarter dean's extension, you must apply for readmission to the program by completing a new application form and paying the reapplication fee. The graduate committee of the program and the dean of the college must review the readmission application. The criteria for readmission should be the currency of your courses, project, or thesis. The program may require retaking or adding particular courses, updating the project or thesis, taking additional practicum or internship hours, or fulfilling any degree requirements that have been added since the initiation of your program. If readmission is approved, the specifications for readmission must be presented to you in writing, with a copy placed on file in the Office of Graduate Studies.

#### Second and Dual Master's Degrees

If you wish to earn a second or dual master's degree at Ohio University, you must make formal application for admission to the department in which you are seeking the second or dual master's degree and pay the appropriate application fee. For a second master's degree, you must prepare a program of study for each master's degree by listing the course number, name, and number of credits. You may use no more than three courses or up to a maximum of 15 credit hours from one master's degree program to satisfy degree requirements in a second master's degree program. Each program of study must be signed by the departmental graduate committee in both departments in which master's degrees will be earned. You must then submit the programs of study to the Office of Graduate Studies for final approval. Any admission status given in a second master's degree program must be regarded as provisional until the programs of study are approved.

#### **Doctoral Degrees**

The doctoral degree is granted on the basis of evidence that you have achieved a high level of scholarship and proficiency in research rather than solely on the basis of successful completion of a prescribed amount of coursework. Your competence and ability to work independently and write creatively are established by qualifying and comprehensive examinations and the quality of a dissertation submitted as an account of your original research.

### Program of Study and Advisory Committee

The graduate committee of your department will assign an advisor and an advisory committee who must approve the proposed program of study for the degree. Graduate work completed at another university will be considered by the departmental graduate committee and your advisory committee in the development of your program of study. The guidelines for transfer of credit outlined in the previous section apply, with the exception of the maximum number of hours, which is waived for students pursuing doctoral degrees.

Typically, when the dissertation proposal is nearing approval, the departmental graduate committee will forward to the office of the dean of the college in which you are enrolled a recommendation for appointment of a dean's representative, together with the names of other dissertation committee members and the title of your dissertation. The committee must consist of at least three members representing the range of content in your program of study, in addition to the representative from the dean's office.

#### **Comprehensive Examination**

When coursework is virtually completed, and upon the recommendation of the advisory committee, you take a comprehensive examination to establish your mastery of the fields of specialization and readiness for advanced research. The results of the examination must be reported within one week to

the office of the dean of the college in which you are enrolled on a form provided by the dean's office.

A copy of this form should be sent to the Office of Graduate Studies to be included in your academic file.

#### **Scholarly Discipline Requirement**

The doctoral degree by definition is research oriented, and each department determines the auxiliary research competencies needed by doctoral candidates. Competence is determined by standards and methods established by the individual department. If you expect to demonstrate proficiency in one of the scholarly disciplines in which examinations are arranged by your dean's office (e.g., statistics, computer science, or foreign language), you must file an appropriate intent form. This form is available from and should be filed with the office of the dean of the college in which you are enrolled. You must be registered for a minimum of two hours in the quarter in which you take the examination.

The French, German, Russian, and Spanish proficiency examinations of the Educational Testing Service are given at Ohio University several times during the year. Information and application forms are available at the Department of Modern Languages, Gordy Hall 283.

#### **Academic Residency Requirement**

Normally, at least three academic quarters of the doctoral program are in continuous residence on the Athens campus in an institutional full-time status (registration for 15 graduate credits). If you receive Ohio University stipend support, you are considered to have instructional full-time status by registering for a minimum of 12 graduate credits for an assistanship, or a minimum of 15 graduate credits for an OGS, fellowship, or tuition scholarship only. For some programs, the residency requirement can be fulfilled a third way: if you are not receiving stipend or scholarship support, you may be granted the option of completing residency requirements for the doctoral degree by enrolling in nine quarter hours of coursework per quarter for three consecutive quarters if concurrently employed in a full-time professional

position, defined as one in which the experience contributes directly to your program. This option must be approved by your advisor, the department or school graduate committee, and the department chair or school director. A written justification of how the experience gained in the position is directly and educationally related to your professional goals and the goals of the program, and why this experience (alone or combined with other planned experiences) should be used to satisfy residency, is required.

You must submit the written justification to your advisor before the request will be considered. The continuous residence requirement applies to the period of graduate study following the completion of the master's degree or the completion of at least 45 graduate credits.

#### **Admission to Candidacy**

Admission to candidacy is achieved after you have completed the following steps: (1) formation of the dissertation committee (including the dean's representative), which may be the same as your advisory committee; (2) approval of the research proposal by this committee; (3) successful completion of the comprehensive examination; and (4) satisfaction of all required scholarly disciplines.

Forms indicating completion of the above steps are available from and filed in the office of the dean of the college in which you are enrolled. You are not permitted to schedule the oral examination of the dissertation until you have met all requirements for admission to candidacy.

A copy of your admission-to-candidacy letter should be sent to the Office of Graduate Studies for inclusion in your official file.

#### Dissertation

A dissertation, the scholarly account of research in the new area of knowledge, is submitted by each candidate (see "Restricted Publications of Theses or Dissertations"). Each department prescribes the specific style manual to be followed by its students. A pamphlet, "Format for the Presentation of Theses and Dissertations," is available in the

deans' offices. This booklet contains regulations regarding type, margins, quality of paper, abstract, and other aspects, as well as detailed directions for submitting the finished dissertation to the office of the dean of the college in which you are enrolled. You must obtain from your dean's office the current "Format" and the list of quarterly deadlines for graduation.

After the dissertation has been approved by your dissertation committee, dissertation director, and dean, two copies are forwarded to Alden Library. In addition, one copy is retained in your department, and another is submitted to University Microfilms International for microfilming and entry into Dissertation Abstracts International. Upon the return of the copy from University Microfilms International, both copies are bound and cataloged; one copy is placed in Archives and the other in the stacks. The dissertation is considered a public document and made available to the public in the same manner as any other document cataloged within the University library.

A copy of the dissertation abstract should be sent to the Office of Graduate Student Services for inclusion in your official file.

Doctoral students have the option of submitting their dissertation in an electronic rather than paper copy format. A pamphlet titled "Guidelines for Preparation of Electronic Theses and Dissertations" describes this option. The pamphlet is available in the Office of Graduate Studies (McKee House). Students wishing to explore this option should contact the Office of Graduate Studies. Dissertations submitted electronically are available through OhioLink. A single paper copy is bound and placed in the library.

#### Copyright

Dissertations can be copyrighted at the time the manuscripts are sent to University Microfilms International. Arrangements can be made through the library for this service. Under current copyright procedures, microfilming by University Microfilms International constitutes publication. You may lose the ability to obtain a copyright if your dissertation is not copyright.

righted at the time of submission to your dean's office. For further information, contact the University Libraries administrative office in Alden Library 512.

#### **Oral Dissertation Examination**

An oral dissertation examination is required of all doctoral candidates. The examining committee is composed of your entire dissertation committee (including the representative of the dean of the college in which you are enrolled) unless otherwise specified by the associate provost for graduate studies. You must present final copies of the dissertation to members of the examining committee at least two weeks before the date of your oral examination to allow adequate time for review. The final arrangements for the examination must be completed through the office of the dean of the college in which you are enrolled at least 10 days prior to the examination. Details of the examination, including time and place, are sent by the dean's office to you and the examiners.

The Office of Graduate Studies should be notified of the date that you passed the oral examination for inclusion in your official file.

#### **Time Limit**

You must complete the doctoral program of study within seven calendar years of the date of its initiation as determined by the department and recorded in the Office of Graduate Studies.

If you do not complete requirements for the degree within the given period, you may be permitted to continue in graduate study only if exceptional circumstances are associated with the delay in progress.

The dean of your college may grant a one-time one-quarter extension. If circumstances require an extension beyond the one-quarter dean's extension, you must apply for readmission to the program. The application for readmission must be reviewed by the graduate committee of the program and the dean of the college. Criteria for readmission should be the currency of your (1) knowledge of the required work, (2) research literature, and (3) research methods and techniques. The program may require additional

coursework, retaking the oral/written comprehensive examination, changing or updating the dissertation, or fulfilling any degree requirements that have been added since the initiation of your program. If you are approved for readmission, the specifications for readmission must be presented to you in writing with a copy placed on file in the Office of Graduate Studies.

### Restricted Publication of Theses or Dissertations

The University does not accept theses or dissertations containing material developed as part of a research project if the thesis or dissertation is restricted from publication. Publication, for this purpose, includes the cataloging and placement of the approved manuscript in the Ohio University Libraries and, for dissertations, microfilming by University Microfilms International. (University Microfilms International does allow authors to restrict the distribution of dissertations and theses.)

Upon written request to your dean's office, you may delay publication up to a maximum of 12 months if, in the judgment of the office, the data upon which your thesis or dissertation is based are proprietary and not available in the public domain. You must submit the request for delay with the formal approval of your advisor at least one academic quarter before the normal date of publication of the thesis or dissertation.

A thesis or dissertation completed at Ohio University is withheld from the public only if it has been approved for delayed publication following the procedures outlined above or if a question of plagiarism, libelous or abusive statements, or falsification or misrepresentation of data is raised, in which case the manuscript is withheld until the issue has been resolved.

For further information, consult Ohio University Policy and Procedure #19.051.

Students submitting theses or dissertations electronically may restrict electronic access to the documents for up to five years. This provision is made available to ensure individuals the opportunity to publish the thesis or dissertation work. For additional information about this option, students should contact the Office of Graduate Studies.

#### Registration

Details concerning registration procedures are given in each quarter's *Schedule of Classes*, which is available from the Registrar's Office before the registration period, or on the Web.

If you are a graduate student with admission status who has not registered for a quarter or more (except summer), you need to obtain a new registration access code (RAC), following the procedure detailed in the quarterly *Schedule of Classes*. Former students whose admission status has expired through time limits must apply for a time extension, or reapply for admission. Students whose admission status has expired due to graduation must apply to a new degree or non-degree program.

You must be registered at the graduate level in any quarter in which you receive any service from the University or use its facilities. You must also be registered in the quarter in which you will graduate. Master's students must be registered for at least one graduate credit hour, and doctoral students for at least two. Any exceptions to registration hour requirements must be approved by the office of the dean of the college in which you are enrolled.

If you are currently attending the University, you may preregister for a subsequent quarter.

#### **Identification Card**

When you register, you will be given information about obtaining an identification card, issued by Communication Network Services (CNS). This card, which is automatically validated when you register, gives you access to campus services including the meal plan, library privileges, and the Student Health Service.

The card is issued free of charge according to these guidelines:

- **1** If you are a new student, you are issued a card free of charge.
- 2 If you are a re-enrolling student returning after one year or more, your old card will be valid upon registration. If you no longer have your old card, you will be issued a new card free of charge.

**3** If your name or Social Security number has changed, you will be issued a new card free of charge provided you return your old card when the new one is issued.

CNS charges a card replacement fee under these circumstances:

- 1 You will be charged \$10 to replace a card that is lost, stolen, or damaged within one year of your last quarter of enrollment. (A \$5 refund will be issued if you find your old card and return it to CNS during the same quarter in which it was replaced.)
- **2** If your name or Social Security number has changed, you will be charged \$10 for a new card *only* if you do not return the old card. If you return the old card when the new one is issued, you will not be charged.

#### **Full-Time Status**

A graduate student enrolling for nine or more credits is assessed full-time fees. Students with graduate contracts are required to register for a minimum of 12 or 15 graduate hours, as described elsewhere in this catalog.

#### **Veterans Benefits**

To receive full veterans benefits, you must register for at least nine quarter hours of graduate work. For more information about veterans benefits, contact the Veterans Coordinator, Chubb Hall 110.

#### **Auditing**

To audit a course, follow the registration procedures outlined in the quarterly Schedule of Classes. The academic fees for auditing a course are the same as the fees for taking a course for credit. Since auditing is a grading option, you can change from audit to credit or credit to audit only by dropping the course and re-adding it with the correct grading option. You can make this change only during the first 15 calendar days of the quarter or the active registration period for the appropriate summer session. Refer to the Schedule of Classes for specific dates.

Your instructor may set up specific requirements for auditing a course, and if you do not meet the requirements, you may be removed from the class, at the instructor's discretion, with a grade

of WP or WF. Be sure to discuss your auditing status with the instructor at the first class meeting.

Courses taken for audit do not fulfill registration requirements for graduate appointments.

#### **Cancellation of Registration**

Your advisor or graduate chair, with the approval of the dean, may request that Graduate Studies cancel your registration because of poor academic performance, failure to meet course prerequisites, falsified signatures, failure to provide final transcripts, or other violations of University policy.

### Change Procedures Change of Class Schedule

To add a course, withdraw from a course, or correct your registration, follow the procedures outlined in the quarterly Schedule of Classes. Changes that deal with programmatic content must be approved by your faculty advisor and the course instructor.

**Adds.** A course may be added only during the first 15 calendar days of the quarter or the active registration period for the appropriate summer session. Follow the procedures outlined in the quarterly *Schedule of Classes*.

Drops. You may drop any course through the fifth week\* (defined for the purpose of this policy as the 35th calendar day) of a term. After the end of the fifth week and before the last class day of the quarter, you may petition your dean in writing, requesting to drop under special circumstances. (Earning a low grade in the course is not considered such a circumstance.) If you drop a course during the first two weeks (15 calendar days), you will have no record of the course on your transcript.

If you drop a course after the 15th day of the quarter\*, the instructor assigns a grade of WP or WF, indicating that you were performing work considered passing (WP) or failing (WF) at the time you dropped the course. This grade is awarded at the end of the quarter, at which time the name of each student who has dropped a course appears on the grade sheet.

If you drop some but not all hours before or during the first 15 days of the quarter\*, when such changes result in reduction of fees, you are entitled to receive a 100 percent refund of the reduction. Changes made after the 15th day of the quarter\* result in no refund. Please note: Cancellation of registration is defined as dropping all classes before the first day of classes. Withdrawal from the University is defined as dropping all classes on or after the first day of classes. You cannot withdraw from all classes using TRIPS or Web registration. Withdrawal is not permitted on or after the last day of class.

\*NOTE: Registration deadlines vary for summer session I and II and flexibly scheduled courses. Refer to the Schedule of Courses or the Registrar's Office for specific deadlines.

This policy is to be implemented for degree-seeking graduate students in the following way: during the time between registration and the end of the fifth week, you must inform your instructor and department graduate committee chair of your intent to drop a course. After the fifth week of the quarter and before the last class day of the quarter, you may petition your department graduate committee chair in writing to request a drop under special circumstances. If the department graduate committee chair approves the request, a copy of the special petition will go to the dean of your college for approval. Poor academic performance is not sufficient grounds for dropping a course. Graduate students who are not formally part of a graduate program are covered by the drop policy as it applies to undergraduates.

#### **Change in Program Requirements**

As a degree candidate, you must either (a) meet the requirements set forth in the *Graduate Catalog* at the time of your initial registration in a graduate degree program, or (b) should you choose to follow the requirements of a later catalog, meet those requirements in their entirety. In the event of program changes, departments are expected to make appropriate adjustments to allow you to fulfill the

requirements of the initial program of study. If an extension of time beyond one quarter is granted, you are generally expected to meet all requirements of the program at the time of the extension request. Requests for such extensions must incorporate a detailed explanation of the means employed to meet modifications in requirements enacted since your entry. This information is considered by the graduate committee and the dean of the college as part of the approval process. (This paragraph does not apply to students in the College of Osteopathic Medicine.)

#### **Change of Personal Information**

All changes to your personal data must be reported to the Registrar's Office, Chubb Hall. Forms are available in the Office of Graduate Studies or the Registrar's Office. Changes of name, social security number, and birth date must have a document verifying the correct information at the time the request is made. International students must report all changes of address in accordance with immigration regulations.

Forms for reporting a change of home or Athens address are available in the Office of Graduate Studies. You are responsible for any University office communication sent to you at the last address reported to the Registrar's Office.

### Graduate Student Responsibility

You assume responsibility for knowing University, college, and departmental regulations and for complying with all applicable procedures. In no case will a requirement

be waived or an exception granted because you plead ignorance of the requirement or assert that your advisor or another authority did not inform you of the requirement. While the personnel of the Office of Graduate Studies and your advisor will endeavor to aid in every way possible, the responsibility for meeting requirements stated in this catalog rests with you.

#### Late Registration

Unless in the judgment of the registrar your registration has been delayed due to the convenience of the University, a late registration fee will be assessed beginning with the third week of each quarter.

The late fee\* is \$40 the third week, \$60 the fourth week, \$80 the fifth week, and \$100 the sixth week.

The last day to register with a late fee is the Friday of the sixth calendar week of the quarter.

All fees, including the late registration fee, must be paid before the late registration form will be accepted and processed.

In addition to all other service charges, a \$10 returned check charge will be assessed by the Bursar's Office on all checks returned by a bank for insufficient funds.

\*fees subject to change without notice.

#### Withdrawal from the University

Apply for withdrawal on a withdrawal form obtained from the Office of Graduate Studies. When the request for withdrawal has been approved by the associate provost for graduate studies, the order is referred to the Office of Student Records, which grants an official withdrawal after it has been determined that all obligations to the University have been met. A refund of registration fees is made according to regulations. Refer to the current schedule of classes for timelines and a full description of the Refund of Registration Fee Policy.

If you withdraw after the 15th day of any quarter, you will receive a WP/WF grade in each course. If you fail to complete the work of a course and do not complete an authorized withdrawal, you will have an F reported for the course.

If you have withdrawn from the University for medical reasons, you may not be reinstated until the Office of Graduate Studies has received a written clearance from the Student Health Service.

#### **Transcripts**

A copy of a your records is issued by the Registrar's Office as an official transcript. Transcripts are made only upon written request, with a \$5 charge for each copy.

Unmet University financial obligations, incomplete documents, or pending disciplinary cases may result in a hold being placed on your academic record. A transcript will not be sent until the hold is cleared by the initiating office.

#### Replacement Diploma

To receive a replacement diploma, you must file with the Registrar's Office a notarized affidavit attesting that your original diploma has been lost or destroyed, a copy of a court order verifying a legal name change, or a copy of your official marriage certificate. In the case of a legal name change, the original diploma must be returned.

Each affidavit requesting a replacement diploma must be accompanied by a \$15 fee.

The replacement diploma will carry current titles and signatures of University officers and the notation "official replacement." Allow 6 weeks for delivery.

#### **Academic Misconduct**

All forms of academic misconduct are prohibited by the Student Code of Conduct. Academic misconduct refers to dishonesty in assignments or examinations (cheating); presenting the ideas or the writing of someone else as your own (plagiarism); or knowingly furnishing false information to the University by forgery, alteration, or misuse of University documents. records, or identification, Academic misconduct includes, but is not limited to, permitting another student to plagiarize or cheat from your work; submitting an academic exercise (written work, printing, sculpture, computer program) that has been prepared totally or in part by another; acquiring improper knowledge of the

contents of an exam; using unauthorized material during an exam; submitting the same paper in two different courses without the knowledge and consent of your professors; or submitting a forged grade change slip.

If you have committed any act of academic misconduct as determined by the judgment of a faculty member or by the procedures of the Office of University Judiciaries, serious action—which may include failure of work undertaken, failure in the course, and formal disciplinary action, including suspension or expulsion by the Office of University Judiciaries—will be taken against you.

In cases of academic misconduct, a faculty member has the authority to grant a failing grade. If your course grade is lowered by an instructor who has accused you of plagiarism, you may appeal this grade first through the instructor, then the department chair or school director, and then the dean of your college. If satisfaction is not achieved through this process, the dean will appoint a faculty committee of five members, including the chair or director of the department or school, to consider your case and render a decision. The decision of this committee is not subject to further appeal.

The faculty member also has the discretion to refer your case to the director of judiciaries. The director of judiciaries, the University Hearing Board, and the University Appeal Board have the authority to take formal action that includes, but is not limited to, suspension or expulsion from the University. However, the director of judiciaries, the University Hearing Board, and the University Appeal Board have no authority to modify a grade given by a faculty member.

If you wish to appeal an action of University Judiciaries or the University Hearing Board, such as suspension or expulsion, you can take the matter to the University Appeal Board. Details of appeal procedures are included in the Student Handbook.

Further information on academic misconduct is available from the Office of University Judiciaries, Beckley Building, Suite D, telephone 740.593.2629.

#### **Intellectual Property Policy**

The University intellectual property policy is defined by Ohio University Policy and Procedure 17.001. In accordance with state law (Section 3345.44. Ohio Revised Code), patentable inventions created by Ohio University faculty, staff, and students are the property of the University if the work was supported by University funds or performed in University-controlled facilities. Computer software and databases are the property of the University if created as part of University-assigned duties. The policy provides for a generous sharing of any royalties among the inventors and the relevant University units, departments, and colleges. Students are encouraged to read the complete policy and procedures on the Web-at http://www.ohio.edu/policy/17-001.html or contact the Technology Transfer Office, 20 E. Circle Drive, Suite 190, telephone 740.593.1818.

#### Research Using Human Subjects

The investigator in any research involving human subjects at Ohio University is expected to conduct any and all such experiments in compliance with Ohio University Policy and Procedure 19.052.

In summary, this policy applies to research investigations involving human subjects conducted by faculty, staff, or students at or under the auspices of Ohio University.

The purpose of the policy is to protect the rights and personal privacy of individuals, to assure a favorable climate for the conduct of scientific inquiry, and to protect the interests of Ohio University. Ohio University's policy on research involving human subjects is in compliance with the requirements set forth in the National Research Act (P.L. 93-348) and the regulations on public welfare set forth in Part 46 of Title 45 of the Code of Federal Regulations (45 CFR 46).

For details concerning the scope and purpose of this policy and for information concerning procedures, see the Ohio University Policy and Procedures Manual or contact the Office of Research and Sponsored Programs.

### Graduation and Annual Commencement Exercise

You must apply for graduation through the Registrar's Office and pay the graduation fee by the date indicated in the University calendar. You can apply online at

http://www.ohio.edu/registrar/. If you fail to meet graduation requirements in that quarter, you must reapply for graduation and pay the graduation reapplication fee by the date indicated in the University calendar for the quarter in which you will meet graduation requirements. You must submit all work to be applied toward meeting degree requirements no later than the last day of classes of the quarter in which you expect to graduate. Additional deadlines to be met by students writing theses or dissertations are available in the office of the dean of the college in which you are enrolled.

The annual commencement is held at the close of spring quarter in June. Master's and doctoral degree recipients from the preceding winter, fall, and summer quarters are invited to attend, along with spring-quarter candidates. Doctoral candidates must be approved for graduation by their college dean before they can participate.

Academic attire with appropriate hoods is worn by candidates at the commencement exercises. Make arrangements for purchasing academic attire through the Office of Public Occasions.

#### Services for Students

#### Office of Graduate Studies

The Office of Graduate Studies assists students with the University processes of admission, registration, and graduate appointment contracts, and electronic theses and dissertations, and is a source of information on matters affecting graduate students. Personnel in this office are available for consultation and assistance on matters of interest to graduate students. All official graduate files are kept in this office.

#### **Career Services**

The Office of Career Services offers assistance in making career decisions, exploring career options, and conducting effective job searches. Services include:

Individual advising on career decisionmaking and job search strategies;

Seminars on career decision making, résumé preparation, interview techniques, and other career-related topics;

A Mock Interview Program that allows you to practice and improve your interview performance;

Career fairs that bring a wide variety of employers to campus to discuss career and job opportunities;

A Career Resource Center containing a wealth of career information: career guides, employer directories, graduate school guides, admissions test bulletins, summer job and internship listings, employer literature, and professional job vacancies.

In addition to the above services, which are free to all students, the office also offers the Online Job Search Program for students who will graduate in the current academic year. This program consists of three special services: computerized résumé referrals, Bobcat Job postings, and on-campus interviewing. To be eligible for this

program, you must register with the office by attending a registration orientation session that explains services and procedures; paying a nominal fee; and submitting required materials.

The Career Services Web site http://www.ohio.edu/careers/—can provide general career information and connect you with a range of other jobhunting resources on the Internet.

You are encouraged to contact Career Services, Lindley Hall 185, telephone 740.593.2909, for assistance in all career-related matters.

#### **Computer Services**

Computer Services provides state-ofthe-art computing resources and facilities to Ohio University students. Professors or instructors arrange for your access to course-specific computer resources.

Computer Services also operates two satellite labs where you may use microcomputers for your academic work. The microcomputers can be used to access the Internet and Ohio University's network of computers.

Lab locations include Alden Library and the Computer Services Center. Many departments also operate computing labs for their own students. The departmental and Computer Servicesmanaged locations have a wide variety of microcomputer software available. Approximately 50 labs are available—some to all students, some with restrictions.

Two residence halls have Windowsbased computer labs, including Boyd Hall and Brown Hall.

The main offices for Computer Services are in the Computer Services Center. The Alden Instructional Support Lab is located on the second floor of Alden Library. Hours for the computer labs are posted in the labs on a quarterly basis.

The labs contain laser printers for printing high-quality output.

Communication Network Services (CNS) provides voice and data communications, along with TCP/IP-based networking support, to the campus community.

The campus telephone network, owned and maintained by Ohio University, furnishes approximately 9,000 voice lines and connects more than 110 buildings on campus through a fiber-optic network. Supporting more than 7,000 students and 3,500 faculty and staff on campus, CNS provides on-campus calling, local calling, and long distance service to the campus, as well as maintenance, installation, and technical support for microcomputer and audiovisual equipment.

CNS also supports the University Wide Area Network, reaching all University departments and connecting thousands of computers to campus computing resources. Links to other networks, including the Ohio Academic Resource Network (OARnet), the Internet, and the five Ohio University regional campuses, give students and faculty the ability to access information from networks around the world.

### Counseling and Psychological Services

Counseling and psychological services are available to graduate and undergraduate students on an individual and group basis for educational, career,

and personal adjustment concerns. Confidential consultations are provided by a staff of counselors, psychologists, and trainees.

If you are facing personal problems of any kind (emotional, social, marital, substance abuse, stress, etc.), you can receive help in understanding and resolving those difficulties. Workshops on a variety of topics, designed to support the educational, social, and personal growth of students, are frequently offered.

If you are having academic difficulties, you can receive help in understanding and resolving your concerns so that you can improve your performance.

If you are uncertain about your educational or career objectives, you can obtain assistance in appraising your abilities, interests, performance, etc., so you can identify more appropriate and satisfying directions.

The Miller Analogies Test (MAT) is administered biweekly.

To make an appointment, contact the receptionist on the third floor of Hudson Health Center or call 740.593.1616 between 8 a.m. and noon or 1 p.m. and 5 p.m. Monday through Friday.

#### Cultural Events and Entertainment

University students have the opportunity to see theatrical productions produced by the Ohio University School of Theater during the academic year. In addition, the Ohio Valley Summer Theater stages two productions during the summer.

The School of Music offers recitals and concerts by students, faculty, and visiting artists, and the School of Music Opera Workshop produces an annual opera.

The Performing Arts Series comprises 10 to 14 national and international programs that include symphony orchestras, Broadway theater, dance, recitalists, choral, and ethnic programs.

A variety of art exhibitions are available

in the University's Kennedy Museum of American Art. Additional exhibitions, including work by the School of Art faculty and students, are displayed in the Seigfred Hall and Trisolini Galleries.

Pop concerts by contemporary entertainers are sponsored by student organizations on campus. First-run movies, foreign films, experimental movies, and classic films are shown throughout the year.

The University invites distinguished speakers and artists to appear in recital or to lecture informally on campus through the Schools of Theater, Music, and Dance; the Kennedy Lecture Series, Frontiers in Science Lecture Series, and Student Lectures.

The University's public radio stations, WOUB-AM and -FM, and public television station, WOUB-TV, provide entertaining and educational programming for the University and community.

#### **Graduate Council**

The Graduate Council reviews, coordinates, and serves as an advocate for graduate education at Ohio University. The council has both advisory and policy-recommending responsibilities for graduate education. The council initiates, reviews, and recommends University-wide policy and new directions for graduate education.

The Graduate Council recommends to the University Curriculum Council the initiation, implementation, and elimination of graduate programs and degrees at Ohio University. Other recommendations by the council go through the provost to the president for final approval.

The composition of the Graduate Council represents both departments that grant doctoral degrees and those offering only master's degrees.

#### **Graduate Student Senate**

The Graduate Student Senate is composed of student representatives from each graduate academic department. It represents the graduate student body in the University commu-

nity and provides a forum in which graduate students can discuss issues related to their concerns about both academic and nonacademic aspects of the community.

The Graduate Student Senate is recognized by the University as the representative graduate student organization, and is therefore responsible for recommending graduate students for positions on University standing committees. The senate also awards the Outstanding Graduate Faculty Award, the Outstanding Graduate Student Award, and the Graduate Student Senate John Houk Memorial Research Grants for graduate student research. Other Graduate Student Senate activities include workshops on such topics as grant writing and library resource system identification and use, and yearly research activities on the quality of graduate life and education.

The Graduate Student Senate meets on a regular basis. All meetings are announced and open to the public.

For more information or a copy of the Graduate Student Senate constitution, contact the president of Graduate Student Senate, Ohio University, Athens OH 45701-2979, telephone 740.593.1899.

#### **Health Service**

The Student Health Service is located in Hudson Health Center on the North Green. As an enrolled student, you have access to medical care in the ambulatory care clinic on a walk-in basis Monday through Friday. Your eligibility for services does not depend on purchasing student health insurance.

Serving you in the outpatient clinic are a pharmacy, a medical laboratory, x-ray facilities, and a physical therapy department. The staff includes physicians, registered nurses, physical therapists, pharmacists, and registered laboratory and x-ray technicians. A medical record is maintained.

If you are an international student, you must have a tuberculosis skin test upon

first arriving in Athens or returning to the campus after an absence of two or more years. This test is given free of charge. Check the current *Schedule* of *Classes* for time and place.

#### Health Insurance

Ohio University requires students to maintain a health insurance plan. Domestic students taking seven or more hours and international students taking one or more hours will automatically be billed for insurance. The major medical plan offered by the University is designed to supplement the care provided by the Student Health Service. Graduate students participating in an internship or co-op program, or completing a master's thesis or doctoral dissertation, may also be eligible.

The plan, subject to the benefits and exclusions of the policy, provides protection against major medical and surgical expenses for the insured student at home, at school, or while traveling anywhere in the world. In addition to accident and sickness benefits, the policy includes repatriation, medical evacuation, and accidental death benefits.

If you are married or a single parent, you may purchase the University accident and sickness plan for your spouse and dependent children. For more information regarding student insurance, you can call the Student Health Service at 740.597.1816.

#### **Residence Services**

#### **Residence Hall Residence Services**

Many graduate students find oncampus living to be a convenient and comfortable option. Residence hall options for graduate students include buildings designated for graduate students and students over 21 years of age; air conditioned facilities; and facilities with in-room computers and printers. Predominant room styles include doubles and singles, and there are a few triples and quads. Most residence hall space designated for graduate students is on South Green. Residence hall housing is secured by returning the housing acceptance agreement to Ohio University Residence Services. Priority for residence hall assignments is established by the date the agreement is returned. Assignments are made in the order the agreements are received; those received earlier are assigned first.

The Residence Services agreement is binding for the entire academic year (fall, winter, and spring quarters), unless you graduate or otherwise leave the University. Once the academic year begins, it is highly unlikely that a continuing student will be released from the contractual obligation that is assumed when the agreement is returned.

#### **Dining Services**

Five basic meal plans are offered to help meet a variety of needs. You do not have to live on campus to participate in one of the meal plans, but may purchase any of the plans as an offcampus student. The 10-meal plan is the least expensive and is for light eaters or those who anticipate eating most of their meals off campus. The 14meal plan allows you to select any 14 meals during a seven-day period and is a good choice if you tend to spend your weekends away from campus or prefer two meals a day. The 20-meal plan allows you to eat all meals served during a seven-day period. The most economical of the meal plans, it is preferred by those who eat almost exclusively on campus, athletes, and hearty eaters. The Super 20 is for those who want 20 meals a week and don't want to forfeit the value of a meal that they may miss or skip. Both the Super 20 and Super 14 allow you to use missed meal credits, either by taking a friend to the dining hall or by getting items from one of the snack bars, convenience, or walk-up window. This plan may be shared with another student. For the 10-, 14- and 20-meal plans, weekly missed meals are forfeited; the plans are not transferable. All University food service contracts are binding for the entire academic year for on-campus students. Off-campus students may purchase a quarterly meal plan contract.

#### **University Apartments**

Ohio University has two apartment complexes rented primarily to married students, students with children, and single graduate students. The Wolfe Street Apartments are located on the southeast corner of the main campus, near the Ping Recreation Center, Fifty units are available in a two-story brick building: 38 one-bedroom units, 8 bedroom/nurseries, and 4 efficiencies. The Mill Street Apartments are six blocks northeast of the main campus, adjacent to the intramural fields. Sixtvtwo one-bedroom apartments are housed in a six-story building with elevator service. Each of the 68 twobedroom apartments is housed in one of 6 smaller buildings with direct access to the outdoors. Out-door parking facilities, coin-operated laundries, and a fenced playground are located in both complexes.

All Wolfe Street apartments are furnished; Mill Street apartments may be rented either furnished or unfurnished. Furnished apartments at Mill Street are limited. Furnishings in the apartments do not include linens, bedding, dishes, lamps, or rugs. Both furnished and unfurnished apartments are equipped with an electric range, refrigerator, and miniblinds. All utilities are included in the monthly rent, including monthly television cable service. A telephone outlet is provided in each unit. Local phone service can be provided by Verizon. Tenants are responsible for paying for phone service. Air conditioners are permitted with an additional installation and electricity surcharge fee. All guidelines established by the University regarding air conditioner usage must be followed.

#### Interim Housing

The University tries to provide graduate students with housing at a nominal cost during the breaks between the fall and winter quarters and the winter and spring quarters, when residence halls are closed. Interim housing will likely involve a temporary change of residence.

For a period of about 40 days—from Thanksgiving through New Year's Day—Ohio University is not in session. You should plan to have sufficient funds to cover living expenses for this period. Dining Service is not available on campus, and meal costs in local restaurants are considerably more than the per-day cost of a regular board plan.

If you have questions about the residence halls or want information concerning University apartments, contact Residence Service, Chubb Hall 60, Athens OH 45701, telephone 740.593.4090, e-mail housing@ohio.edu. http://www.ohio.edu/housing/

#### Information Center

A complete information service in the lobby of Baker University Center answers questions regarding University services, programs, campus events, and facilities. For information, call 740.593.4000.

The Information Center has Ohio University brochures, the Campus Directory, academic and social calendars, and researches questions when information is not immediately available. In addition, it provides check cashing services.

For University personnel and student telephone numbers during the day, call the switchboard 740.593.1000.

#### **Institutional Equity**

It is the policy of Ohio University that there shall be no discrimination against any individual in educational or employment opportunities because of race, color, religion, national origin, sexual orientation, gender, status as a disabled veteran or veteran of the Vietnam era, or disability. Also, there shall be no discrimination because of age except in compliance with age requirements of retirement plans or state and federal laws and guidelines.

Furthermore, the University conducts a vigorous affirmative action program in order to promote equal employment opportunities and to ensure nondiscrimination in all educational programs and activities.

It is a goal of Ohio University to increase the representation of underrepresented students in all of its graduate programs, and to that end, specific efforts are being made by individual academic departments to recruit minority graduate students. Special opportunities for minority and/or female students have been created through grant funds in several areas, including telecommunications, osteopathic medicine, electrical engineering, psychology, and health careers.

For more information about special opportunities, contact the graduate chair in the specific department or the dean's office in the appropriate college.

#### **Harassment Policy**

Harassment of students, staff, or faculty is not acceptable behavior at Ohio University. No male or female member of the Ohio University community including faculty, contract staff, classified staff, and students may harass any other member of the community. Many forms of harassment are discrimination under Title VII of the Civil Rights Act of 1964 and thereby illegal under law as well as a violation of Ohio University policy. Ohio University is committed to maintaining an environment in which every individual can work, study, and live without being harassed. Harassment

may lead to sanctions up to and including termination of employment or student status.

Harassment is any conduct that has the intent or effect of unreasonably interfering with an individual's or group's educational, living, or work environment. Harassment includes conduct relating to race, color, gender, disability, religion and sexual orientation, age, national origin, or veteran status.

In addition, sexual harassment includes unwanted advances, requests for sexual favors, or other verbal or physical conduct of a sexual nature when:

- 1) Submission to such conduct is made either explicitly or implicitly a term or condition of employment or of a student's status in a course, program, or activity.
- 2) Submission to or rejection of such conduct is used as the basis for decisions affecting the individual.
- 3) Such conduct has the purpose or effect of unreasonably interfering with the individual's work, performance, or educational experience or creating an intimidating, hostile, or offensive environment for work or learning.

Nonsexual verbal or physical conduct that denigrates or shows hostility toward another because of the person's gender can be the basis for a hostile, offensive, or intimidating environment claim. Gender-based conduct can take the form of abusive written or graphic material; epithets; sexist slurs; negative stereotyping; jokes; or threatening, intimidating, or hostile acts.

All Ohio University employees and students are responsible for compliance with this policy. All University supervisory personnel have an affirmative responsibility to discourage and eliminate conduct inconsistent with this policy. Complaints can be received and investigated only by employees who have been authorized by the institution. Authorization will be given only to individuals who have completed training provided by staff of the Office for Institutional Equity. Any

individual who is not authorized but is approached about concerns or complaints regarding harassment must direct the complainant to an authorized employee. Because of their positions or the nature of their work, the following individuals, or their designees, shall have completed training and thereby be authorized to receive and investigate inquiries and complaints: representatives of each major planning unit other than the unit head (the list is available at the Office for Institutional Equity and the Office of Legal Affairs and at http://www.ohio.edu/Equity/IntakeReps. html) and representatives from the Offices for Institutional Equity, Health Education and Wellness, University Judiciaries, Legal Affairs, Ombuds, and Human Resources. When authorized employees are contacted with a complaint, they must consult with the Office for Institutional Equity.

#### Libraries

The University Libraries support research, teaching, and learning at Ohio University, providing print and electronic collections, and serving as an information resource center for students and faculty. The Vernon Roger Alden Library, located on the College Green, is the central library facility on the Athens campus.

**Staff.** The Alden Library staff consists of more than 130 trained and experienced individuals, most of whom are assigned to providing assistance and consultation to library users in person and online. Librarians utilize two computer labs in Alden Library for a variety of orientation and instructional programs to help students understand the variety of information resources available from the Libraries.

**Collections.** The Libraries' collections include more than 2 million printed volumes, over 12,000 e-books, and subscriptions to about 28,000 journals and magazines, including 6,000 in electric format. In addition, the collections of maps, microforms, photographs, videos, CDs, and other non-print items number nearly 3 million.

Services. The Libraries' participation in OhioLiNK, the online network linking all 80 academic libraries in Ohio, provides convenient requesting and quick delivery of library materials statewide. Through OCLC, an international network, and other national and global agreements, materials in more distant research collections are readily available to University students and faculty for research and study. Document delivery and current awareness services are also available to assist in study and research.

Alden Library offers 70 public workstations for use in accessing electronic information resources. The Libraries and OhioLINK together subscribe to over 3,000 online research databases and reference tools. Such networked resources can be consulted and searched, not just from library buildings, but also from other campus and off-campus sites.

Alden Library is open 100 hours per week, with longer hours at the end of each quarter, before and during final exams. For those who use the Library for reading and study, there are about 2500 seats and, for group projects, a number of group study rooms. The Library houses separate subject and special collections: Archives and Special Collections, Children's Collection, Fine Arts Library, Government Documents Department, Health Sciences Library, Instructional Media and Technology Services, Map Collection, Microforms and Non-print Collection, and the Center for International Collections.

The Music/Dance Library and two periodical reading rooms, one for chemistry and another for mathematics, are housed in the appropriate academic buildings. Lesserused library materials are stored at the Lee Library Annex, with deliveries of requested items made to Alden Library twice a day through the week. Each of the regional campuses also has a library.

Instructional Media and Technology Services (IMTS). IMT5, located on the second floor of the library, provides audiovisual equipment and services to the entire University community. IMTS lends more than 14,000 instructional video and DVD titles. Graphic production services, including research poster displays, digital AV and Web materials, are available upon faculty request. Audiovisual equipment such as projectors and recorders can be rented by registered campus student organizations.

For more information about the Ohio University libraries, visit our World Wide Web site: http://www.library.ohiou.edu/

#### Motor Vehicles/Registration

Parking information can be obtained at the Parking Services Web site: http://www.facilities.ohiou.edu/parking/ or by stopping by Parking Services located at 100 Factory Street, or by calling 740.593.1917. If interested in garage parking, please contact the Housing Office at Chubb Hall or call 740.593.4090.

Before students can drive or park on Ohio University property, they must register their vehicle with Parking Services. Failure to register a motor vehicle or parking illegally makes the violator subject to penalties as printed on the violation/citation. Motorcycle parking is restricted to specifically designated areas. There is no charge to register vehicles.

Parking maps are also available free of charge at Parking Services.

CATCAB is a free service designed to transport students, faculty, and staff with permanent or temporary mobility limitations. Users of this service are asked to pre-schedule for transports to classes and other campus functions. CATCAB is available 7:45 a.m. to 7:30 p.m. Monday through Friday. Schedules and other information regarding the use of CATCAB can be obtained by calling 597-1909.

#### **University Ombuds**

The Ombuds serves as an advocate for fairness while assisting students and other members of the University community in resolving problems. The Ombuds works as a change agent when issues or concerns repeatedly emerge, and serves as a resource on University policies and procedures.

Further duties include assisting individuals in accomplishing the expeditious settlement of their problems: intervening in the bureaucratic process on behalf of individuals when that process unnecessarily or unfairly impinges upon them, and using broad investigatory powers through direct and ready access to all University officials of instruction and administration. Complaints and grievances brought to the office are handled with confidentiality. Finally, the Ombuds reports valid complaints directly to the president when no remedy has been found elsewhere in the University.

The University Ombuds Office is located at Crewson House 200, telephone 740.593.2627.

### Research and Sponsored Programs

The Office of Research and 5ponsored Programs assists faculty and graduate students in obtaining grants for external support of research, doctoral dissertations, fellowships, and other University-based projects. The office maintains a library of information sources on grant opportunities, which is open to all members of the University community. Graduate students are often appointed to externally supported faculty-directed research projects as graduate research associates and receive a stipend and tuition scholarships.

#### Recreation

The Ohio University Division of Campus Recreation, under the administration of the College of Health and Human Services, is committed to the health and wellness of the Ohio University community. A commitment is made to improve the quality of life by providing quality facilities and programs and ensuring customer satisfaction.

The division is composed of the Aquatic Center, Bird Ice Arena, Charles J. Ping Student Recreation Center, driving range, fields, Golf and Tennis Center, Outdoor Pursuits Rental Center and Challenge Course; and there are programs in club sports, fitness, intramural sports, and outdoor pursuits. These areas complement one another in providing students with facilities and programs to meet their recreational interests and needs. They also fulfill University goals by encouraging physical, emotional, and social growth.

The Aquatic Center features a long course Olympic-sized 25 yard by 50 meter pool that has two three-meter and two one-meter diving boards, an underwater observation area for viewing swimming and diving techniques, and a sun deck.

Bird Ice Arena is an indoor arena that features an illuminated 190-by-85-foot ice surface with fiberglass dasher boards. It provides skate rentals, lounge area, concession stand, and a pro shop.

The Ping Center is one of the largest campus recreational facilities in the country. The center offers a 36-foot high double-sided climbing wall, five basketball/volleyball courts, two multipurpose gymnasiums, an elevated fourlane running track, eight racquetball courts (two convert to squash courts and four convert to wallyball courts), and a combative arts room. A small games area offers billiard tables, table tennis, air hockey, and foosball. The

fitness area and free weight room provides users with a variety of cardiovascular and resistance training equipment, including equipment for physically challenged individuals. Spacious aerobics and combative arts rooms are also available. The lounge is furnished with sofas, chairs, chest tables, a \$2" television, dance floor, and electronic mail stations.

The Golf and Tennis Center, located immediately next to the Ping Center, consists of a nine-hole golf course, putting greens, four indoor tennis courts, and six outdoor tennis courts. The indoor tennis courts are covered by a 40-foot tent structure, allowing players to compete in state-of-the-art playing conditions. The clubhouse offers golf and tennis equipment rentals, golf cart rental, racquet restringing, private lessons, concessions, and resale items.

The illuminated 300-yard driving range is located on West State Street and can accomodate approximately 30 drivers.

The Outdoor Pursuits Program provides opportunities for outdoor adventure sports and activities. It offers various outdoor trips, a gear-rental program, outdoor clinics, an outdoor climbing tower, low and high challenge courses, and a climbing wall. The Outdoor Pursuits Program is housed in the Ping Center. The Challenge Course comprises two distinct components, the "Low Course" and "High Course." Challenge courses encourage traits such as leadership, teamwork, communication, planning, self-discovery, problem solving, and more. The Challenge Course is available on a private rental basis to groups of 10-15. Students, faculty/staff, alumni, and the community are welcome.

The Ping Center and the Aquatic Center, open year round, are available to students, faculty, and staff. The Aquatic Center is open to the community and alumni during lap and recreational swim times; the Ping Center is available to community and alumni on special weekend events and as guests of students, faculty, and staff. Bird Arena, golf course, and driving range operations are seasonal.

The division administers the 30 recognized club sports on campus. Each club is run by students and establishes an organizational framework, leadership, and a schedule to meet the needs of its members. New clubs can be organized if they meet the needs of the University community. Many of the outdoor club sport activities take place on the south green club sports fields, the Stimson Avenue club sports fields, and the West State Street club sports fields. Use of these fields is by reservation only.

The Fitness Program offers diverse program opportunities, including fitness sessions ranging from traditional Step and Hi/Lo to CardioKick.
Mind/Body Sessions offer exciting activities such as Yoga and Pilates®.
Personal fitness training and fitness assessments also are available. A registered dietician is on staff to provide nutritional services. Two licensed massage therapists offer 30 and 60 minute massages.

The Intramural Sports Program offers a diverse set of structured activities for students, faculty, and staff. The program offers individual, dual, and team sports for men, women, and coed teams. Team activities include baseball, basketball, bowling, broomball, flag football, floor hockey, indoor soccer,

sand volleyball, soccer, softball, volleyball, and wallyball. Team sports activities are scheduled in leagues, which play during the afternoon and evenings. Individual and dual activities are offered for air hockey, badminton, bench press, billiards, cross country, darts, disc golf, foosball, horseshoes, marathon, racquetball, squash, table tennis, tennis, and wrestling. Individual and dual activities may be scheduled events or are scheduled to fit the availability of the participants.

The division also offers recreational special events throughout the year. For more information on facilities and programs, call 740.597.2732 (CREC) or visit our Web site at http://www.ohio.edu/recreation/.

### Colleges and Curricula

### Academic Organization

Ohio University offers graduate degree programs through the Colleges of Arts and Sciences, Business, Communication, Education, Engineering and Technology, Fine Arts, and Health and Human Services. Graduate programs are also offered through the Center for International Studies and the College of Osteopathic Medicine. The Office of Graduate Studies coordinates graduate study at Ohio University and administers the Individual Interdisciplinary Studies Program.

Ohio University is fully accredited by the North Central Association of Colleges and Schools at the bachelor's, master's, and doctoral levels. In addition, numerous departments, schools, and colleges within the University hold individual accreditation. Additional information is available from the office of each college's dean.

#### College of Arts and Sciences

African American Studies\*

Anthropology\*

Biological Sciences (M.S., Ph.D.)
Cell biology and physiology, ecology and evolutionary biology, exercise physiology and muscle biology, microbiology, neurobiology

Chemistry and Biochemistry (M.S., Ph.D.)

Analytical, biochemistry, inorganic, organic, and physical chemistry

Classics and World Religions\*

Conservation Biology (certificate)

Economics (M.A., M.F.E.) Applied economics (M.A.), financial economics (M.F.E.)

English (M.A., Ph.D.)

Environmental and Plant Biology (M.S.; Ph.D. through Department of Biological Sciences)

Biochemistry, cell biology, ecology, evolution, molecular biology, plant morphology, mycology, paleobotany, plant physiology, plant systematics

Environmental Studies (M.S.)

Life sciences, environmental monitoring, environmental policy and planning, physical and earth sciences, and environmental archaeology

Foreign Languages and Literatures French, Spanish (M.A.) Courses in Chinese, French, German, Greek, Indonesian/Malaysian, Latin, Italian, Japanese, Russian, Spanish, Swahili, Southeast Asian Literature in translation Geography (M.A.)

Geological Sciences (M.S.) Geology, hydrogeology, environmental geology, environmental geochemistry, geophysics

History (M.A., Ph.D.)

**Linguistics (M.A.)**Linguistics, Teaching English as a second or foreign language

Mathematics (M.S., Ph.D.)
Applied mathematics, computational mathematics, mathematics for secondary school teachers, pure mathematics (M.S.); algebra, analysis, topology, applied mathematics (Ph.D.)

Molecular and Cellular Biology (M.S., Ph.D.)

Ohio Program of Intensive English\*

Philosophy (M.A.)

Physics and Astronomy (M.A., M.S., Ph.D.)

Political Science (M.A., M.P.A.) Political science (M.A.), public administration (M.P.A.), executive M.P.A.

Psychology (M.S., Ph.D.) Clinical, experimental

Social Sciences (M.S.S.)

Social Work (M.S.W.)

Sociology (M.A.)

Women's Studies (certificate)

#### College of Business

Business (M.B.A.)
Executive M.B.A. Program, M.B.A.
Without Boundaries, Business/Sports
Administration, M.B.A./M.S.A.

#### **College of Communication**

Communication Systems Management (M.C.T.P.)

Communication Studies (M.A., Ph.D.)
Interpersonal communication, organizational communication, rhetorical and communication theory

Journalism (M.S.)

Mass Communication (Ph.D.)
Journalism, Telecommunications

Telecommunications (M.A.)
International communication,
management, policy/regulation, media
studies, multimedia

Visual Communication (M.A.)
Photojournalism, commercial
photography, interactive multimedia,
picture editing/publication design

#### College of Education

Adolescent to Young Adult Education (M.Ed.)

College Student Personnel (M.Ed.)

Computer Education and Technology (M.Ed.)

Counselor Education (M.Ed., Ph.D.)

Cultural Studies in Education (M.Ed.)

Curriculum and Instruction (M.Ed.)

Curriculum and Instruction (Ph.D.)
(Emphases: curriculum and
instruction, instructional
technology, math education,
middle level education, reading
and language arts, social studies
education, special education)

Educational Administration (M.Ed., Ed.D.)

Educational Research and Evaluation (M.Ed., Ph.D.)

Elementary Education (M.Ed.)

Higher Education (M.Ed., Ph.D.)

Mathematics Teaching at the Adolescent to Young Adult Level (M.Ed.)

Middle Child Education (M.Ed.)
Reading Education (M.Ed., Ph.D.)

Special Education (M.Ed., Ph.D.)

### Russ College of Engineering and Technology

Chemical Engineering (M.S., Ph.D.)
Biochemical and biomedical
engineering, corrosion and flow in
multiphase systems, batteries and fuel
cells, electronic and avanced carbon
materials, energy and pollution control,
air quality and atmospheric chemistry

Civil Engineering (M.S.)

Geotechnical, environmental, geoenvironmental, structures, solid mechanics, water resources, transportation

Computer Science (M.S.) Electrical Engineering and Computer Science (M.S., Ph.D.)

Mobile robotics, medical image processing, artificial intelligence, distributed agents, scientific visualization, computer graphics, computational biology, approximate algorithms, complexity theory, casebased reasoning, knowledge engineering, data communications, operating systems, software and systems engineering, real-time systems, cryptographic protocols, electronic commerce, internet security, online privacy; Avionics, applied and theoretical computer science, communications, controls, information theory, solid-state electronics, energy conversion, power

electronics, power systems, electromagnetics, signal processing, manufacturing, VLSI design, computer vision, electronic circuits, optoelectronics

Industrial and Manufacturing Systems Engineering (M.S.)

Manufacturing systems, manufacturing information systems

Integrated Engineering (Ph.D.)
Civil engineering, industrial
engineering, mechanical engineering

Mechanical Engineering (M.S.) Mechanical systems, CAD/CAM, manufacturing, biomedical, thermofluid sciences, technology management

#### **College of Fine Arts**

Art (M.A., M.F.A.)

Studio: Ceramics, painting, photography, printmaking, sculpture (M.F.A), art history, art history/studio (M.F.A.); art education (M.A.)

Interdisciplinary Arts (Ph.D.)

Dance\*

Film (M.A., M.F.A.)

Music (M.M.)

Composition, history and literature, music education, music therapy, performance, performance/pedagogy, performance/composition, theory

Theater (M.A., M.F.A.)

Theater history and criticism (M.A.); acting, directing, playwriting, production design and technology (M.F.A.); theater (M.A.)

\*Offers graduate-level coursework but no degree or certificate.

#### College of Health and Human Services

Health Sciences (M.H.A.) Health Administration

Hearing, Speech and Language Sciences (M.A., Au.D., Ph.D.) Speech-language pathology (M.A., Ph.D.), audiology (Au.D., Ph.D.)

Human and Consumer Sciences (M.S.) Early childhood education, family studies, food and nutrition

Nursing (M.S.N.)

Nurse administrator, nurse educator, family nurse practitioner

Physical Therapy (D.P.T.)

Recreation and Sport Sciences (M.S., M.S.A., M.B.A./M.S.A.)

Athletic training education, coaching education, recreation studies, exercise physiology-research, exercise physiology-clinical (M.S.); sports administration (M.S.A.); business/sports administration (M.B.A./M.S.A.).

### Center for International Studies

International Affairs (M.A.)

African Studies, Communication and Development Studies, International Development Studies, Latin American Studies, Southeast Asian Studies.

### Individual Interdisciplinary Program

Individual master's and doctoral programs

#### Lifelong Learning

Executive, professional, and online degree programs

### College of Osteopathic Medicine

Four-year professional program leading to the Doctor of Osteopathic Medicine degree (see separate catalog).

### Certificate Programs

#### **Conservation Biology**

The Program in Conservation Biology offers an interdisciplinary graduate certificate in conservation biology. The program applies a multifaceted understanding of the factors affecting the conservation of biological diversity. It is centered in the Department of Biological Sciences but includes faculty members from the Departments of Environmental and Plant Biology, Econo-mics, Geography, and Political Science.

Students enrolled in any master's or doctoral program at Ohio University are eligible to apply for the certificate. For additional information on admission and requirements, see the program description in the College of Arts and Sciences section.

#### **Contemporary History**

The Contemporary History Institute offers a certificate in contemporary history that serves as an adjunct to the M.A. and Ph.D. degrees in history, the M.A. degrees in economics and political science, the M.S. in journalism, and the Ph.D. in mass communication (journalism sequence). The institute is centered in the Department of History, but it also draws faculty and students from the Departments of Economics and Political Science, the E. W. Scripps School of Journalism, and the undergraduate Honors Tutorial College.

Students receive the certificate after satisfactorily completing a sequence of interdisciplinary seminars and tutorials focusing on the methodology, themes, and issues in contemporary history and writing a thesis or dissertation on some aspect of that subject.

For additional information on admission and requirements, see the program description in the College of Arts and Sciences section.

#### Gerontology

The College of Health and Human Services and the College of Arts and Sciences jointly sponsor the multidisciplinary graduate gerontology certificate program. The

Most of the certificate programs listed on this page are open to all students pursuing a graduate program at the University, regardless of college or field. The health care services administration certificate, health policy certificate, he gerontology certificate, and the performance certificate are open to nondegree students. These interdisciplinary programs can complement your primary area of interest, broaden your career possibilities, or allow you to study an area of interest from a variety of perspectives. You will be awarded the certificate and receive official recognition on your transcript when you graduate.

program is designed for students who want to gain knowledge and skills for a career that involves working with the elderly.

Students enrolled in any master's or doctoral program, as well as nondegree students, at Ohio University are eligible to apply for the certificate. For additional information on admission and requirements, see the program description in the College of Health and Human Services section.

### Health Care Services Administration

This certificate program is not currently accepting students for admission while the School of Health Sciences undergoes a reorganization of programs. It is anticipated that students will be accepted for fall 2005.

The health care services administration certificate program is intended for health and health-related professionals who want the basic administrative and managerial knowledge that this program can provide. The certificate program exposes the student to the competencies, knowledge, and skills needed to function more effectively in a variety of administrative and managerial roles throughout health services organizations. Certificate holders will be prepared to work collaboratively with professionals from a variety of disciplines to gain insights into rural and urban program administration and services in order to be able to work with both underserved and other population groups.

Students enrolled in any master's or doctoral program at Ohio University, as well as nondegree students, are eligible to apply for the certificate. For additional information on admission and requirements, see the program description in the College of Health and Human Services section.

#### **Health Policy**

The multidisciplinary graduate certificate in health policy addresses the educational needs of graduate students and

professionals in health care and related industries who have already earned a bachelor's or graduate degree. It is designed particularly for those who work or plan to work in business, government, health sciences, hearing and speech sciences, medicine, nursing, nutrition, political science, physical therapy, psychology, or social work.

Students enrolled in any master's or doctoral program at Ohio University, as well as nondegree students, are eligible to apply for the certificate. For additional information on admission and requirements, see the program description in the College of Health and Human Services section.

#### **Performance**

The School of Music offers a performance certificate that provides an intensive program of study for students whose career goals are directed towards performance. The 30-hour program is designed to be completed in one to two years of full-time study. Applicants must have an earned bachelor's degree or the equivalent. Students pursue the performance certificate in a nondegree status and may not simultaneously pursue a Master of Music. For additional information on admission and requirements, see the program description in the College of Fine Arts section.

#### Women's Studies

The interdisciplinary graduate certificate in women's studies can complement any degree program; it may be particularly helpful to those who plan to work in such areas as journalism, counseling, education, health, management, labor relations, social work, law, personnel, and wherever analysis of gender and sex is applicable.

Students enrolled in any master's or doctoral program at Ohio University are eligible to apply for the certificate. For additional information on admission and requirements, see the program description in the College of Arts and Sciences section.

### Areas of Instruction

The following sections, arranged by college, describe areas of graduate instruction at Ohio University and the requirements for admission to and completion of graduate degree and certificate programs. All programs and requirements are subject to change without notice at the discretion of Ohio University.

#### **Guide to Course Listings**

Course listings for each area follow the program requirements.

#### Course Number

The course number indicates the student classification for which the course is intended. Courses numbered 500–699 are for master's-level students; courses numbered 700–899 are for post-master's or doctoral-level students. No graduate credit is awarded for any work taken below the 500 level.

The italicized information following some course descriptions gives the following information: faculty name; quarter offered (F for fall, W for winter, Sp for spring, Su for summer); frequency with which the course is offered (A for alternate years, Y for yearly, D for on demand); and the last year in which the course was offered.

#### **Credit Hours**

Credit for a course is indicated by the number or numbers in parentheses following the course title.

For a course carrying variable credit, the credit may be expressed as a range and a maximum—for example, (1–4, max 8)—indicating that one credit is the minimum and four credits the maximum allowed for the course in one quarter. You may enroll for a course with variable credit any number of times and for any number of credits within the quarter limit, provided the total registration for the course does not exceed the maximum. Departments may limit the number of hours counted in satisfying degree requirements.

#### **Prerequisites**

Course prerequisites are indicated at the beginning of course descriptions following the abbreviation "Prereq." Even if you have not met the prerequisites, you may add a course by obtaining the instructor's permission. Once you have completed an advanced course, you may not subsequently enroll in a prerequisite course for credit.

Courses described in this catalog are for graduate credit only; graduate standing is a prerequisite for enrollment. For more information, see "Undergraduates Taking Graduate Courses" in the Application for Admission section.

#### Class Schedule

Each quarter's Schedule of Classes is available from the Registrar's Office and other locations around campus.

## College of Arts and Sciences

Wilson Hall, College Green

Leslie Flemming Dean

Howard Dewald
Associate Dean

Maureen Weissenrieder Associate Dean

http://www.cas.ohiou.edu/

The College of Arts and Sciences offers the Master of Arts or Master of Science degree through 16 departments. Multidepartmental and special discipline master's degrees are offered in social work, social sciences, environmental studies, and public administration. Doctor of Philosophy degrees are offered in biological sciences, chemistry and biochemistry, English, environmental and plant biology through biological sciences, history, mathematics, physics and astronomy, and psychology. More than one area of emphasis is available at both degree levels in several of these departments.

Each department will provide upon request a brochure describing specific degree requirements, specialized graduate facilities, and any other information that prospective students might need. For more information, please visit our Web site (http://www.cas.ohiou.edu/).

#### **Facilities**

Among the college's graduate facilities and equipment are a Tandem van de Graaff nuclear accelerator, several modern nuclear magnetic resonance spectrometers, a nitride MOCVD facility, the Keck Thin-film Analysis Facility, a scanning tunneling microscope with molecular beam expitaxy growth chamber, several chemical spectrometers, several electron microscopes, a scanning confocal microscopy facility, a photomicroscopy laboratory, and a mammalian recombinant genetics laboratory. Specialized laboratory facilities include a morphometrics laboratory, an exercise physiology laboratory, and a hybridoma laboratory. A large preserve of remnant primary forest, Wayne National Forest, Ohio Department of Wildlife areas, and a 180-acre land laboratory adjacent to the campus are all available as resources for teaching and research. Ohio University is a member of the Association of Systematic Collections; collections include an herbarium with more than 5,000 plant species, an entomological collection with more than 100,000 insect specimens, a vertebrate collection with more than 10,000 species, a paleobotanical collection with more than 100,000 specimens, and a paleoinvertebrate collection with at least 350,000 specimens. Departments in the social sciences maintain up-todate computer laboratories, and the Experimental Psychology Research Laboratory and a modern clinical facility serve as resources for training in psychology.

#### **Graduate Degree Programs**

Biological Sciences (M.S., Ph.D.) Chemistry and Biochemistry (M.S., Ph.D.) Economics (M.A., M.F.E.) English (M.A., Ph.D.) Environmental and Plant Biology (M.S., Ph.D. through Biological Sciences) Environmental Studies (M.S.) Geography (M.A.) Geological Sciences (M.S.) History (M.A., Ph.D.) Linguistics (M.A.) Mathematics (M.S., Ph.D.) Modern Languages: French, Spanish (M.A.) Molecular and Cellular Biology (M.S., Ph.D.) Philosophy (M.A.) Physics and Astronomy (M.A., M.S., Ph.D.) Political Science (M.A.) Public Administration (M.P.A.) Psychology (M.S., Ph.D.) Social Sciences (M.S.S.) Social Work (M.S.W.) Sociology (M.A.)

### Graduate Certificate Programs

Conservation Biology Contemporary History Women's Studies

# Curricula and Courses

### **African American Studies**

http://www.ohiou.edu/aas/

The Department of African American studies does not offer an academic program leading to a graduate degree. It does, however, offer several graduate courses that enable students to earn a minor concentration in African World Studies. The courses provide a broad interdisciplinary approach to the black experience and include the social sciences, communication, education, psychology, and the arts and humanities. Several courses contribute to degree programs in African and Latin American studies. Graduate students pursuing a degree in communication, education, international studies, health sciences, sociology, history, political science, or philosophy will find a minor emphasis in the African world experience to be useful.

# African American Studies Courses (AAS)

501A Images of Blacks (4)

Examines the sources and the effects of the dominant negative images of blacks that have pervaded American culture—bucks, coons, buffoons, improvident, children, devoted Christians, etc.—with a view to showing how they relate to slavery and the subsequent exclusion of blacks from the mainstream of American life. Also examines alternative images. Materials are drawn from a variety of areas—literature, sciences, pseudosciences, media, and visual arts. Rose.

- 530 Social Theories of Underdevelopment (5) Systematic review of problems of social change in developing areas from multidisciplinary point of view. Attention to problems of agrarian reforms, urbanization as social process, and regional disparities within framework of single nation state, among others. Comparative analysis of problems of social development undertaken typologically. Rhodes.
- 531 Third World Ethnic Politics (5)
  Review of various theories of race. Critique of diverse definitions of ethnic groups. Attention to problem of ethnicity in international arena. Cross-national comparisons made of ethnic processes in developing countries vis-à-vis ethnic processes in the U.S. and Western and Eastern Europe. Rhodes.
- 532 Third World National Movements (5) Comparative study of varieties of national oppression. Questions of ethno-nationalism, clerical nationalism, and other forms of response to oppression reviewed. Due attention to various notions of Pan Africanism and Black Nationalism in the U.S., Africa, and Latin America. *Rhodes*.

#### 540 The Black Child (5)

In-depth study of black child—impact and effects of growing up in America. Specifically, deals with effects and role of school and family in creative adjustment of black child in predominantly white society. Childs.

#### 582 The Black Family (5)

Black family in America and its important role in development of ethnic differences, strengths, and strategies. *Childs*.

#### 691 Professional Seminar (1-15)

Class involving contact hours, discussion, and required assignments. If you enroll in an upperdivision undergraduate course under this course number, you are required to complete assignments beyond those required of undergraduates and to write papers to present to class for discussion.

#### 697 Independent Research (1-15)

For students desiring to pursue independent research projects under supervision of a faculty member and resulting in term paper or equivalent. Usually a sequel to previous subject-matter course.

#### **Anthropology**

http://www.cas.ohiou.edu/socanth/

No graduate degree in anthropology is offered, but some graduate courses are offered each quarter. These contribute particularly to degree programs in Asian studies, African studies, Latin American studies, environmental studies, and sociology, as well as other programs such as communication, comparative arts, creative writing, dance, ecology, economics, education, film, food and nutrition, geography, linguistics, philosophy, and political science.

#### **Anthropology Courses (ANTH)**

501 Anthropology and Film (5)

Prereq: 101. The use of film as a medium for recording cultural information; as a technique for observation, analysis, and interpretation of cultural information; and as a means for presenting information about cultures, human adaptation, human evolution, and anthropological research itself.

545 Gender in Cross-Cultural Perspective (5) A cross-cultural comparative inquiry into the way different non-Western cultures define femininity and masculinity. Taking the view that gender is a cultural construction, the course examines the relationships between gender ideas and such features of social systems as kinship and political hierarchy. Ethnographic fieldwork materials are explored in light of current gender theories.

550 Economic Anthropology (5)

Survey of economic arrangements found in various types of cultural systems with emphasis on application of anthropological theory and method for understanding particular systems.

551 Political Anthropology (5)

Cross-cultural survey of political arrangements with emphasis on application of anthropological method and theory to political problems.

552 Archaeological Anthropology (5) Introduction to contemporary archaeology in which goals, theory, and method are directed toward reconstruction of extinct sociocultural systems rather than toward time-space

distribution of archaeological materials.

555 Medical Anthropology (5)

Non-western medical systems and theories of health and disease causation; social basis for diagnosis and cure; curing rituals; symbolism of health and illness. Ecological factors in health and nonhealth; systematic connections between health or illness and both way of life and environmental situation.

#### 556 Seminar in Methodology and Field Research (5)

A graduate seminar in anthropological field methods, designed to present the basic methodology literature and prepare students to conduct anthropological field research. Since anthropology has subfields (cultural anthropology, archaeology, physical anthropology), the methodological literature and techniques presented vary by instructor's specialty. When taught by a cultural anthropologist, the focus will often be on ethnographic methods.

557 Anthropology of Religion (5)
Survey of various aspects of religion in their
cultural setting with emphasis on the use of

cultural setting with emphasis on the use of anthropological theories for an objective understanding of religion.

560 Kinship (5)

Theoretical framework and ethnographic work on kinship systems of various world cultures; non-western family systems; kinship terminology; social change in kinship systems.

561 North American Prehistory (5)
Analysis and interpretation of the cultural
evolution of indigenous North American Indian
cultures. Emphasis on cultures from Ohio and
the Midwest.

563 Gender in Prehistory (5)

Examines the application of gender studies as an analytic tool for archaeological reconstructions. Considers evolving gender roles within a wide range of past cultural settings.

564 Near East Prehistory (5)

Scrutiny of the archaeological data and consequent reconstruction of the evolutionary process affecting cultures in the Near East. Analysis begins with the earliest occupation of the region and ends with the establishment of various state systems.

565 Field School in Ohio Archaeology (5–10)
Prereq: perm. Actual archaeological investigation of prehistoric Indian sites in Ohio. Involves survey, excavation, and laboratory analysis of materials, as well as lectures on anthropological archaeology as it pertains to Ohio.

566 Cultures of the Americas (5)

Survey of cultural diversity present in South, North, or Mesoamerica with emphasis on application of anthropological method and theory to understanding of particular sociocultural systems.

567 South American Prehistory (5)

Reconstruction, analysis, and interpretation of the process of cultural evolution as expressed by the ancient societies of South America.

570 Mexican/Central American Prehistory (5) Reconstruction, analysis, and interpretation of the process of cultural evolution as expressed by the ancient societies of Mexico and Central America (Mesoamerica).

#### 571 Ethnology (5)

Cross-cultural analysis of structure, process, and adaptation in various cultural systems; includes kinship, ideology, economics, politics, and environmental relationships.

- 572 History of Anthropological Thought (5) In-depth examination of schools of anthropology as they have developed within various subfields at different times and places.
- 575 Culture and Personality (5)
  Interrelations between personality systems and cultural systems.
- 576 Culture Contact and Change (5)
  Impacts of cultures upon one another: immediate
  and subsequent cultural adaptations. Emphasis
  on southeast Asia, Latin America, Africa.
- 577 Peasant Communities (5)
  Focuses upon folk component of state societies.
- 578 Human Ecology (5)
  Analysis of mutual and reciprocal relations between sociocultural systems and other systems in their environment; ecosystems and biotic communities in which human populations are included.
- 581 Cultures of Sub-Saharan Africa (5) Survey of cultural diversity in sub-Saharan Africa with emphasis on application of anthropological theory and method to understanding of particular sociocultural systems.
- 585 Cultures of Southeast Asia (5)
  Survey of cultural systems of island and mainland
  Southeast Asia.
- 586 Problems in Southeast Asia Anthropology (5)

Selected topics of current theoretical concern relating to southeast Asia.

- 587 Pacific Island Cultures (5)
  Anthropological survey of Melanesia, Polynesia, and Micronesia.
- 591 Primate Social Organization (5) Introduction to primate ethnology, with reference to development of human cultural behavior.
- 592 Human Evolution (5)
  In-depth examination of evidence for biological macroevolution of humans. Topics include fossil record for hominoid and hominid forms, speciation, interpretation of fossil record, evolution of crucial anatomical areas, and fit between paleontological and immunological approaches to evolution.
- 594 Seminar in Anthropology (4–6) Selected topics.
- 599 Readings in Anthropology (1–3, max 8)
  Supervised readings in all areas of anthropology.
  Make individual arrangements with particular faculty member in advance.

#### Bacteriology

See Biological Sciences.

#### **Black Studies**

See African American Studies.

#### **Biological Sciences**

http://www.biosci.ohiou.edu/

Admission to graduate study in biological sciences requires a bachelor's degree with a strong background in the biological and physical sciences, including calculus, organic chemistry, and physics. Results of verbal, analytical, and quantitative tests of the Graduate Record Examination (GRE) are required of all applicants; you must score in at least the 50th percentile to apply. The GRE advanced subject test in biology or a physical science is recommended but not required. GRE scores; the application; transcripts; a short essay concerning prior training, research interest, and career goals; a list of faculty members with whom you are interested in working; and three letters of recommendation should be received by January 15 for you to be considered for financial support during the following academic year. Applicants whose native language is not English also must submit the results of the Test of English as a Foreign Language (TOEFL) or its equivalent; a score of at least 620 is required for admission.

Master's students must complete 45 quarter hours, with at least 30 hours in formal courses and seminars. A nonthesis master's program is available for secondary school and junior college teachers. Doctoral students must complete 135 quarter hours beyond the bachelor's degree, with at least 45 quarter hours in formal courses and seminars. At least one quarter of supervised teaching within the department is required of all master's students, and two quarters are required of doctoral students.

#### **Areas of Emphasis**

Graduate education in the Department of Biological Sciences is conducted in five research focus groups:

The **cell biology and physiology** group employs molecular, cellular, and systems approaches to study animal and plant function.

The ecology and evolutionary biology group integrates research on the ecology, functional morphology, phylogeny, genetics, and life history of natural populations and model organisms to study evolutionary patterns, processes, and mechanisms.

The exercise physiology and muscle biology group focuses on the effects of exercise, nutrition, gender, and aging on human performance, as well as skeletal muscle histology, physiology, metabolism, injury, and healing.

The microbiology group addresses questions concerning the role of microorganisms in environmental and disease processes and the role of the immune system in containing infection. Molecular, cellular, and immunological techniques are used to investigate specific areas of research that include parasites, viruses, bacteria, and the immune system.

The **neurobiology** group addresses areas of research including computational neurobiology; developmental neurobiology, emphasizing trophic interactions in the development of sensory systems; control of movement; central pattern generation; muscle biology; musculoskeletal mechanics; visual, auditory, and vestibular neurobiology; neuronal cytoskeleton and axonal transport; heavy metals and neurodegeneration; neuroendocrine control of development; and neural and neuroendocrine control of the autonomic nervous system.

The department also offers interdisciplinary studies in two areas:

Conservation biology—a plan of study leading to a graduate certificate in conservation biology, offered in conjunction with the Departments of Economics, Environmental and Plant Biology, Geography, Geological Sciences, and Political Science. (See "Conservation Biology.")

#### Molecular and cellular biology—

M.S. and Ph.D. programs offered in conjunction with the Departments of Chemistry and Environmental and Plant Biology. (See "Molecular and Cellular Biology.")

#### **Biological Sciences Courses (BIOS)**

503 Comparative Vertebrate Anatomy (6) Comparative study of the anatomy of vertebrates. Structure, function, and evolution of the vertebrate body forms and organ systems are compared. Extensive lab work covers each of the major classes of vertebrates. 3 lec, 6 lab. Carr, Reilly; W, Sp; Y.

# 505 Quantitative Approaches in Comparative Biology (6)

Quantitative methodologies and analytical techniques used in modern comparative biology are explored through lectures, technical demonstrations, and by using the techniques to collect, analyze, and present data. 3 lec, 6 lab. *Reilly; W; Y.* 

#### 506 Vertebrate Embryology (6)

Prereq: 300 or 303. Development from gametogenesis to organogenesis in representative vertebrate types with lab emphasis given to chick and pig. 4 lec, 4 lab. Ross; W, Sp; Y.

#### 507 Developmental Biology (4)

Mechanisms of animal development at tissue, cellular, and molecular levels of organization, with emphasis on experimental approaches. 4 lec. *Sp; D*.

#### 50B Histology (6)

Prereq: 303. Cells, tissues, and organ systems with regard to their morphological and physiological properties. 4 lec, 4 lab. W; Y.

#### 513 Human Neuroscience (4)

Study of human brain anatomy with functional and clinical considerations. Students will do a complete brain dissection. Students will be assessed by means of a lab practical and two written exams. 3 lec, 2 lab. *DiCaprio, Peterson, Rowe; F; Y.* 

514 Molecular and Cellular Neuroscience (4) Introduction to the molecular and cellular basis of the functioning of the nervous system. Topics to be covered include cell morphology, excitable properties of neurons, molecular biology of ion channels, mathematical modeling, synaptic function, neuropharmacology and signal transduction control of gene epression, learning and memory, and development of the nervous system. 4 lec. Colvin; F; Y.

#### 515 Neural Basis of Sensation and Movement (4)

Prereq: 514 or perm. 5ensory system function and the neural control of movement in vertebrates: how molecules, cells and circuits of nervous systems give rise to sensation (vision, hearing, touch, smell, etc.) and to basic behaviors (locomotion, posture, orientation of head and eyes toward sensory stimuli, etc.). In each class, students hear a lecture and discuss assigned articles from the research literature. A major goal of the course is to train students in critical analysis of primary journal articles. Assessment is based on two essay exams. Peterson, Rowe; W; A.

#### 516 Biogeography (4)

Examination of historical, environmental, and biotic influences that shape spatial patterns of plant and animal distributions and community structure in the contemporary landscape. Dual listed with GEOG 516. Dyer, F, Y.

#### 517 Cognitive Neuroscience (4)

Prereq: 515 or perm. Neural basis of higherorder processes in vertebrates: learning and memory, perception, attention, emotion, consciousness. Topics are considered at behavioral, cellular, and molecular levels. Students are encouraged to understand cognitive processes by integrating research results from multiple levels. In each class, students discuss original journal articles and recent scholarly reviews of topics in cognitive neuroscience. A major goal of the course is to train students in effective presentation of research literature and leadership of group discussions. Assessment is based on two essay exams. Peterson, Rowe; Sp; A.

## 51B Methods in Computational Neuroscience (4)

Prereq: 514 recommended. Lecture, discussion, and computer lab. Introduction to mathematical and computational techniques for modeling single neurons and networks of neurons. Cable theory; Rall's model; compartmental models; introduction to available software for simulating neurons and networks of neurons; modeling of action potentials, Hodkin-Huxley equations, synaptic conductances, and voltage-dependent conductances; Hebbian synapses; synaptic modification rules; quantal analysis; neural networks. Students are expected to complete simulation project using one of the available software packages. 3 lec, 2 lab. Holmes; W; A.

520 Comparative Vertebrate Biomechanics (4) Describes basic mechanical, behavioral, and ecological aspects of animal locomotion and feeding. Some background in anatomy and basic physics (vectors, levers) is recommended. Biknevicius; 5p; A.

#### 525 Evolutionary Genetics (4)

Basic concepts of population genetics (mutation, gene flow, natural selection, genetic drift). Rates, patterns, and processes of molecular evolution at the population and species level. 4 lec. White; F; A.

527 Mechanisms of Gene Regulation (3) Discussion of the molecular events that regulate gene expression to result in appropriate development and differentiation. W; Y.

#### 529 Marine Biology (5)

Biological processes in marine and estuarine habitats, and adaptations for life at sea; emphasis on environmental variables affecting distribution, abundance, and dynamics of marine plants and animals. Includes five-day field trip (estimated cost \$100 per student) to temperate marine environment late in quarter; limited to 20 students. 5 lec, field trip. *Sp*; *Y*.

#### 530 Invertebrate Biology (6)

The marjor taxa of marine and freshwater invertebrates: structure, function, development, evolutionary relationships and ecological adaptations. 4 lec, 4 lab. W; Y.

#### 531 Limnology (5)

Physical, chemical, and biological processes in lakes (analogous to those of oceanography), with emphasis on the analysis of data; distribution, abundance, and dynamics of plant and animal populations; structure, organization, and productivity of communities. Lab covers both standing and running freshwater habitats, with emphasis on acid mine pollution. 4 lec, 3 lab. *Sp; A.* 

#### 534 Biology of Spiders (4)

Morphology, physiology, behavior, and ecology of spiders. One-hour labs cover classification, anatomy, and behavior. 3 lec, 2 lab. *Rovner; W;* 

#### 535 Entomology (6)

Overview of insect biology. Lecture: insect morphology, physiology, behavior, systematics, evolution, and ecology. Lab: emphasis on insect collection and identification. 4 lec, 4 lab. *Johnson, Romoser; Sp; Y.* 

#### 541A Parasitology (3)

Etiology of human parasites, their transmission, diagnosis, and prevention. 3 lec. Rowland; W; Y.

#### 541B Parasitology Laboratory (2)

Laboratory survey of protozoan and helminth parasites with emphasis on life cycles and identification. 4 lab. Rowland; W; Y.

#### 542 Principles of Physiology I (3)

Function of animal cells and organs emphasizing the physical and chemical principles underlying physiological processes. Focus on membrane properties of excitable and nonexcitable cells, chemical messengers and regulators, fluid balance, and nutrient balance. 3 lec. F. W; Y.

#### 543 Principles of Physiology II (3)

Physiological processes underlying locomotion, sensation, behavior, circulation, gas exchange, and temperature relations. 3 lec. W, Sp; Y.

#### 544 Tropical Disease Biology (4)

This team-taught lecture/seminar course is designed to provide an overview of the nature, impact, and management of tropical diseases on our planet and take a holistic approach in the examination of tropical diseases as systems. 4 lec. F; Y.

#### 545 Physiology of Exercise (4)

Fundamental concepts and application of organ systems' responses to exercise: special reference to skeletal muscle metabolism, energy expenditure, cardiorespiratory regulation, and training and environmental adaptations. 4 lec. (Same as PESS 514). *Gilders, Hagerman; F, Sp; Y*.

546 Physiology of Exercise Laboratory (3) Prereq: required for those enrolled in 545. Lab experiences designed to complement 545. 6 lab. *F, Sp; Y.* 

#### 550 Principles of Endocrinology (4)

Prereq: 542 and 543 or 560 or 548 recommended. Endocrine control of mammalian homeostasis and metabolism. 4 lec. Loucks; W; Y.

#### 552 Reproductive Physiology (3)

Prereq: 550 recommended. Reproductive physiology, development, maturation, reproductive cycles, gametogenesis, fertilization, implantation, pregnancy, lactation, and environment and behavior. Emphasis on mammals. Sp; Y.

554 Principles of Physiology I Laboratory (2) Prereq: 542 or concurrent. Laboratory exercises designed to illustrate the experimental basis of principles covered in 542. 4 lab. Chamberlin; F; Y.

555 Principles of Physiology II Laboratory (2) Prereq: 543 or concurrent. Laboratory exercises designed to illustrate the experimental basis of principles covered in 543. 4 lab. Chamberlin; W; Y.

#### 556 Advanced Topics in Physiology (4)

Prereq: 542, 543, 554, 555 or perm. Lecture and discussion of current research in physiology. Topics include membrane, epithelial, cardiovascular, respiratory, excretory, thermal, and metabolic physiology. The lab component will entail research projects designed and conducted by the student under the supervision of the instructor. 3 lec, 2 lab. Chamberlin, Kurijaka; S; A.

#### 557 Animal Systematics (4)

Principles and methods of systematic zoology. Numerical methods and hypotheticodeductive reasoning applied to study of organismic diversity (taxonomy) and geographic distribution (biogeography). Use of computer stressed. 3 lec, 2 hr disc., and computer work. Moody; F; A.

#### 562 Animal Physiological Ecology (4)

Examines how organismal physiology is affected by the physical environment. Comparative approaches explore the behavioral, physiological, and biochemical responses to environmental factors. Current topics and methods addressed in selected readings and discussion. Roosenburg, Johnson, Crockett, F; Y.

#### 563 Cell Chemistry (4)

Structure/function of proteins, lipids, and carbohydrates. Principles of enzyme kinetics, chemical/physical and functional properties of biological membranes. Biochemistry of energy metabolism and mechanisms of metabolic regulation. 4 lec. F. So; Y.

#### 568 Ichthyology (4)

Lecture course emphasizing aspects of biology of major families of freshwater and marine fishes. Topics include morphology, physiology, taxonomy, evolution, ecology, behavior, and zoogeography. Eastman; Sp; A.

#### 571 Ornithology (6)

Bird biology, including discussions on anatomy, physiology, conservation biology, life histories, and role of ornithology in current ecological and evolutionary theory. Research paper required. 4 lec, 4 lab, field. *Miles; F; Y*.

#### 572 Herpetology (5)

Biology of amphibians and reptiles. Lectures emphasize anatomy, physiology, ecology, behavior, taxonomy, and geography. Labs and field trips emphasize species of Ohio and families of the U.S. 3 lec, 4 lab, field. *Moody*; *Sp*; *Y*.

#### 573 Animal Behavior (5)

Ecological, physiological, and developmental aspects of animal behavior, interpreted from the perspective of evolutionary biology. 5 lec. *Morris; W; Y.* 

#### 574 Mammalogy (6)

Mammals; their origin, evolution and adaptations, geographical distribution, ecology and systematics. Emphasis on local fauna. Field project required. 4 lec, 4 lab, field. Svendsen; F; Y.

#### 575 Sociobiology (3)

Current understanding of how and why animal social behavior evolved, including spacing, mating, and parental behavior of solitary as well as social animals. Research paper required. Lectures, reading, and reports. 3 lec. Svendsen; Sp; A.

#### 576 Evolution and the Challenge of Creationism (4)

Examination of two ways of knowing—science and religion—as exemplified in controversy on evolution and creationism. Claims and evidence for evolution and special creation, issues and strategies of conflict, arenas of confrontation, and implications of outcomes for both science and religion discussed. 4 lec/disc. *Hummon; W; Y.* 

#### 577 Population Ecology (4)

Major theories and concepts in population and evolutionary ecology. Emphasis on theoretical, field, and experimental studies pertaining to growth and regulation of populations; population interactions, including predation and competition, distribution and abundance, and life history theories. 4 lec. *Miles; W; A.* 

#### 578 Community Ecology (4)

Prereq: 577 or equiv. Provides a theoretical and empirical examination of the description, structure, and organization of communities. Emphasis on mathematical models that describe the biotic processes that mold community structure. Further consideration of null models in ecology and historical effects. 4 lec. Miles; W; A.

#### 579 Evolution (4)

Current concepts of evolutionary processes; sources of variation, agents of change, natural selection and adaptation, speciation, and macroevolution. 4 lec. Svendsen; W; Y.

# 580 Biological Research Methods (2–4) F, W, Sp; Y.

#### 581 Animal Conservation Biology (4)

The roles of population genetics, population and community ecology, biogeography, systematics, and paleobiology in the study of diversity, design of nature reserves, and the recovery of endangered species. Discussion of extinction as a process, the effects of human-induced habitat degradation on loss of species diversity, and the role of reserves in protection of animal species. White: So: Y.

#### 587 Physiological Laboratory Apprenticeship (6, max 12)

In-depth introduction to contemporary lab techniques, lab operation, and research methodology in selected areas of physiology and pharmacology. Lab apprenticeships form two-quarter sequence which requires enrollment for six credits each quarter. W. Sp; Y.

#### 609 Biological Instrumentation (5)

Introduction to biological instrumentation including basic digital and analog electronic circuits, sensors, and data acquisition techniques. Appropriate for students in neuroscience, physiology, functional morphology, and others who rely on electronic transduction, signal processing, and computer-based data acquisition and control of biological experiments. 2 lec; 6 lab. *Dicaprio; F; Y.* 

# 653 Current Topics in Biological Transport (3) Advanced lecture-seminar. Critical study of literature and research methods pertaining to physiology of biological transport. *F; A*.

654 Physiology of Work and Fatigue (3) Seminar using current literature as basis for detailed discussion of contemporary facts and theories concerning influence of acute and chronic exercise upon physiological processes in mammals. Major areas include skeletal muscle, cardiovascular, endocrine, neuromuscular, and respiratory physiology. Loucks; S; Y.

#### 655 Cardiovascular Physiology (3)

Advanced lecture-seminar course. Hemodynamics, normal physiology of heart and vascular system, and control of cardiovascular function. 3 lec. *Kurjiaka; S; A.* 

# 656 Advanced Physiology of Exercise (4) Prereq: 545 or PESS 514. Advanced concepts and methodologies for research in the endocrinology of exercise, cardiovascular and muscle physiology, and human performance assessment and training. S; Y.

#### 666 Adaptational Biochemistry (3)

Prereq: CHEM 591 or perm. The function and design of enzymes, membranes, and metabolic pathways in animals adapted to live in different and often extreme environments. Biochemical strategies employed to maintain an organism's structure and function during environmental changes in oxygen, water, salinity, temperature and other conditions will be covered. Chamberlin, Crockett, Johnson; Sp; Y.

#### 670 Biostatistics I (5)

Application of univariate statistics to biology. Descriptive statistics, distributions, hypothesis testing, analysis of variance, linear regression, correlation, and analysis of frequencies. 4 lec and arr. Svendsen; W; Y.

#### 680B Techniques in Electron Microscopy (6) Principles and methods for preparation of biological specimens for ultrastructural analysis and research, and some associated techniques. Instruction in microscope operation and maintenance and darkroom techniques. Lab

#### 682 Advanced Topics (1–3)

Specialized topics not otherwise available to advanced students. F, W, Sp; Y.

project and paper required. Arr. Hikida: W: Y.

## 6B3 Colloquium in Ecology, Behavior, and Evolution (1)

Forum for presentation of original research, literature reviews, and discussions of contemporary issues in ecology, behavior, and evolution. Annual participation is required of all graduate students enrolled in the section of Ecology, Behavior, and Evolution. Presentation and discussion. Staff; W, Sp; Y.

#### 685 Research in Zoology (1-15)

Unspecified research, not directly applicable to thesis. F, W, Sp, Su; Y.

#### 695 Master's Thesis (1–15)

Research directly applicable to thesis. F, W, Sp, Su; Y.

# 700 Seminar in Conservation Biology (2) Current research topics in conservation biology. Different aspects of conservation biology are covered each term with the topics chosen based on current issues related to the threats to biological diversity. Faculty and student discussion, 2 lec. W: Y.

# 710 Advances in Signal Transduction (5) Prereq: CHEM 592. Covers the concepts of and recent advances in biochemistry and molecular biology of inter- and intracellular signal transduction. 4 lec. Akbar; F; Y.

#### 711 Neuroscience Methods (4)

Prereq: 514 or perm. Training in electrophysiology including extracellular and intracellular recording and stimulation, sensory mapping, motion transduction, neuromodulation, voltage clamp, computerized data acquisition and analysis, using the "classic" invertebrate preparations (crab leg, leech, crustacean, stomatogastric system, *Aplysia* feeding system). 6 lab, 1 lec. *Hooper, Dicaprio; S; A*.

#### 712 Seminar in Neuroscience (1)

Forum for presentation of original research, literature reviews, and discussions of contemporary issues in neuroscience. Annual participation is required of all graduate students enrolled in the Neuroscience section.

Presentation and discussion. Staff; F, W, Sp; Y.

# 730A Insect Biology (1–2, max 6) Advanced topics in entomology. Romoser; D.

#### 750A Muscle Biology (1–5)

Topics in muscle structure, function, development, disease, and relationship with nervous system. Different aspects of muscle biology covered each term, and topics chosen on basis of need or requests of interested students. Hikida; D.

#### 770B Theoretical Ecology (1-4)

Examination of ecological problems from theoretical and mathe matical standpoint. Svendsen; W: D.

#### 794 Ecology Colloquium (1-2)

Student and faculty presentations of ecologically and evolutionarily focused research. F, W, Sp; Y.

#### 870 Biostatistics II (5)

Application of multivariate statistics to biology; multiple regression and correlation, principal components, canonical correlation, discriminant function, and factor analysis. Project in experimental design and analysis of data. 4 lec and arr. Miles; F; A.

BB0B Techniques in Electron Microscopy (6) Principles and methods for preparation of biological specimens for ultrastructural analysis and research, and some associated techniques. Instruction in microscope operation and maintenance and darkroom techniques. Lab project and paper required. Hikida; W; Y.

895 Doctoral Dissertation (1–15) Research directed toward doctoral degree. F. W. Sp., Su; Y.

#### Microbiology Courses (MICR)

511 General Microbiology (5)

Properties of microorganisms and their importance in our environment. Lab training in common microbiological methods. 3 lec, 4 lab. *F, W.* 

512 Microbiological Techniques (4)
Prereq: 511. Semi-independent course gives
extensive experience in use of bacteriological
techniques and equipment; media preparation,
bacterial identification procedures, encargotic
tissue culture, anaerobic methods, protein and
DNA isolation and quantitation; all with applied
emphasis. 2 lec, 6 lab. W; Y.

513A Pathogenic Bacteriology (3) Microorganisms in relation to disease. Disease manifestations, diagnostic and control methods; some aspects of immunity. 3 lec. *Sp. A.* 

513B Pathogenic Bacteriology Laboratory (2) Pathogenic and clinical diagnostic bacteriological techniques; complements lecture material in 513A. 4 lab.

514 Virology (5)

Introduces graduate students to virology through lecture and laboratory exercises. 3 lec, 4 lab. *Biegalke; F; Y.* 

515A Immunology (3)

Prereq: perm. Fundamental principles and concepts of immunity and the immune response. Credit not allowed for both 515 and 515A. 2 lec. Goodrum; W; Y.

515B Immunology Laboratory (2)

Prereq: MICR 515A or concurrent, or perm. Lab methods introduced include identification and assessment of functional activities in immune cells and molecules and applied immunological methods with antibodies in research, diagnosis, and therapy. Credit not allowed for both 515 and 515B. Credit not allowed for both 515B and 517. 2 lab. Goodrum; W; Y.

518 Epidemiology (4)

Dynamics of spread, methods of treatment, and prevention of infectious diseases in humans. 4 lec. Romoser; F; Y.

525 Molecular Genetics (3)

Interaction of microbial genetics with molecular biology and biotechnology. Topics include genetic elements of bacteria, bacteriophage, and yeast; mutations and mutagenesis; mechanisms of gene transfer and recombinations; regulation of gene expression and recombinant DNA. Holzschy; F; A.

**527** Mechanisms of Gene Regulation (3) Discussion of the molecular events that regulate gene expression to result in appropriate development and differentiation. 3 lec. *W*; Y.

541A Parasitology (3)

Etiology of human parasites, their transmission, diagnosis, and prevention. 3 lec. Rowland; W; Y.

**541B** Parasitology Laboratory (2) Laboratory survey of protozoan and helminth parasites with emphasis on life cycles and identification. 4 lab. *Rowland; W; Y.* 

544 Tropical Disease Biology (4)

Team-taught lecture/seminar course provides an overview of the nature, impact, and management of tropical diseases on our planet and takes a holistic approach in the examination of tropical diseases as systems. 4 lec. F; Y.

575 Microbial Ecology (3)

Examines the interactions of microorganisms with their biotic and abiotic surroundings, including interactions with plants, animals, other microorganisms, air, water, and soil. Additional topics include waste treatment, biogeochemical cycling, and biodegradation/bioremediation. 3 lec. Coschigano; F; Y.

**611A** Advanced Microbiology **(4)** Intensive treatment of bacteria, viruses, and eucaryotic protists. *F: Y.* 

611B Advanced Microbiology (3)
Prereg: 611A. Continuation of 611A. 3 lec. W; Y

613 Advanced Pathogenic Microbiology (3) Mechanisms by which microorganisms cause disease. Biochemical determinants of virulence factors. Selected topics on antagonism of host defense mechanisms. 3 lec. Modrzakowski; W; Y.

614 Animal Virology (4)

Covers molecular and medical aspects of animal virology. Emphasis on various mechanisms of virus replication and oncogenic transformation. Viral diseases, pathogenic mechanisms, interferon, and antiviral drugs also covered. Lab includes exercises in propagation of tissue culture and animal viruses. 3 lec. F; Y.

615 Advanced Immunology (4)

Advanced-level instruction on genetic and molecular mechanisms controlling humoral and cellular immune responses. Current research topics and immunological research techniques will be overviewed via readings of research periodicals. 3 lec. Goodrum; F; Y.

619 Microbial Physiology (5)

Prereq: 611, CHEM 590, 591. Nutrition, function, and metabolism of microorganisms; pertinent lab work illustrating fundamental principles and various experimental techniques. 3 lec, 4 lab. *Sp*; Y.

640 Research Techniques in Microbiology I (6) Basic theory and applications of specific research procedures used in microbiology. Special techniques are introduced for the study of microbial cells and their components. Concentration on microbial cell systems, tissue culture, and monoclonal antibody techniques. 3 lec, 6 lab. F; Y.

641 Research Techniques in Microbiology II (6) Prereq: 640. Advanced analytical techniques introduced for application of research procedures in microbiology. Theory and practice of gas-liquid chromatography, density gradient centrifugation, gel electrophoresis, autoradiography, radioisotope tracer techniques, and special immunological procedures. 3 lec, 6 lab. W; Y.

682 Advanced Topics (1–3)

Specialized topics not otherwise available to advanced students. F, W, Sp; Y.

**685** Research in Microbiology (1–15) Unspecified research, not directly applicable to thesis. *F, W, Sp, Su; Y.* 

695 Master's Thesis (1-15)

Research directly applicable to thesis. Graduate faculty; F, W, Sp, Su; Y.

895 Doctoral Dissertation (1-15)
Research directed toward doctoral degree.

#### **Chemistry and Biochemistry**

http://main.chem.ohiou.edu/

The Department of Chemistry and Biochemistry offers M.S. and Ph.D. programs in analytical, biochemistry, inorganic, organic, and physical chemistry. All degree programs include teaching and research experience.

Although an undergraduate degree in chemistry accredited by the American Chemical Society provides the strongest foundation for graduate work, many successful students have held either a B.A. or B.S. in a physical or biological science or in engineering.

Entering students take standardized examination in the areas of chemistry in which they have had appropriate undergraduate work (analytical, biochemistry, inorganic, organic, or physical). The results determine the level at which students will begin graduate study. During the first year, students are expected to complete 90 lecture hours of graded coursework in their area of major interest and 90 lecture hours of graded elective coursework. The results determine the level at which you will begin graduate study. During the first year, you are expected to complete 90 lecture hours of graded coursework in your area of major interest and 90 lecture hours of graded elective course-work. Acceptable performance on the standardized examination can lead to an exemption for one or more of these courses in the M.S. program. The program of study is flexible to take advantage of previous training and to meet particular needs of the student's area of study.

The M.S. program requires 45 graduate credits in chemistry and approved electives. A seminar course is required each quarter, and students must present one satisfactory seminar each year beyond the first year of study. An examination is given after one year of study to determine if students are qualified to continue graduate work. A failure of this examination may lead to a decision that the student be terminated from the graduate program. Students must defend their thesis orally at a public meeting of their advisory committee. In lieu of a

thesis, a student may submit a paper that has been accepted for publication in an approved journal and the student is a primary author. There is no foreign language requirement for the M.S. The average period of study is two and one-fourth years. You must defend your thesis orally at a public meeting of your advisory committee. In lieu of a thesis, you may submit a paper that has been accepted for publication in anapproved journal in which you are the first author.

The Ph.D. program has no fixed number of required graduate credits but requires a minimum of 90 lecture hours of Ph.D.-level courses in the major area.

The student, the advisor, and the advisory committee will determine coursework that the student should complete. A yearly meeting of the student's committee is required. The student's major advisor will determine the amount of research required for the dissertation. A seminar course is required each quarter and each student must present a satisfactory seminar each year beyond the first year of study. A qualifier examination is given after approximately one year of study to determine if the student should continue in the program. A failure of this examination may lead to a decision that the student be placed into the M.S. degree program or terminated from the graduate program. During the second year of the Ph.D. program, students will begin monthly examinations on subjects announced in advance by the faculty in a student's research area. Four of ten cumulative examinations offered must be passed to continue toward a Ph.D. degree. Once the cumulative exams are completed, a student must present and defend an original independent research proposal.

A student must defend their dissertation orally at a public meeting of their advisory committee. Before the dissertation is approved, a portion must have been accepted for publication in an approved journal. There is no foreign language requirement for the Ph.D. The average period of study for the Ph.D. is four and one-half years.

You must apply at least six weeks prior to the quarter for which you seek admission. Most students enter the chemistry program in the fall quarter. Entry during the academic year other than fall quarter is possible, but usually discouraged. Although there is no formal deadline for applications for financial aid, early application (by February 15 for fall quarter) is strongly recommended.

# Chemistry and Biochemistry Courses (CHEM)

500A Advanced Organic Laboratory (2)
Advanced lab techniques and instrumentation.

501 Organic Chemistry Survey (4)
Survey of the important topics, literature and problems in organic chemistry including structure and bonding, stereochemistry, reaction mechanisms, structural determination, organic synthesis, medicinal chemistry, natural products, and bio-organic chemistry.

**520** Chemical Literature (4)
Chemical literature in journals, handbooks, monographs, and patents. Scientific writing

531 Chemical Separation Methods (3) Modern methods of separating components of complex mixtures with emphasis on operation of, and application to, analytical chemistry. Topics include liquid-liquid extractions, partition chromatography, ion-exchange, gas chromatography, high pressure liquid chromatography, exclusion chromatography, and electrophoresis.

#### 532 Chemical Instrumentation and Electrochemistry (3)

Modern electrochemical techniques and instrumentation with emphasis on their application to analytical chemistry. Topics include potentiometry, specific ion electrodes, DC and AC polarography, pulse polarography, coulometry, chronocoulometry, cyclic voltammetry, and rapid scan voltammetry.

533 Spectrochemical Analysis (3)
Survey of spectrochemical instrumentation with emphasis on their operation and application in analytical chemistry. Topics include atomic absorption, atomic emission, molecular absorption, and molecular emission, and cover emissionabsorption phenomena in the X-ray, ultraviolet, visible, and infrared regions of the electromagnetic reporture.

#### 534 Chemical Separation Methods Laboratory (1)

Prereq: 531 or concurrent. Laboratory work to accompany CHEM 531.

#### 535 Chemical Instrumentation and Electrochemistry Laboratory (1)

Prereq: 532 or concurrent. Lab work to accompany 532.

536 Spectrochemical Analysis Laboratory (1) Prereq: 533 or concurrent, Lab work to accompany 533.

#### 551 Physical Chemistry (5)

For graduate students not majoring in chemistry, Includes thermodynamics, thermochemistry, equilibrium, solutions, electrochemistry, and kinetics.

## 553 Physical Chemistry (4) Calculus-based study of thermodynamics w

Calculus-based study of thermodynamics with applications to chemical equilibria.

#### 554 Physical Chemistry (4)

Prereq: 553. Continuation of 553. Thermodynamics of ionic solutions, kinetic theory of gases, chemical kinetics.

#### 555 Physical Chemistry (4)

Prereq: 554. Continuation of 554. Introductory quantum theory of simple systems with applications to molecular structure and bonding. Introduction to spectroscopy and statistical thermodynamics.

#### 558 Chemical Thermodynamics (4)

Concepts of energy and entropy and their use in predicting the feasibility and extent of chemical reactions.

#### 559 Physical Chemistry (4)

Prereq: 554. Continuation of traditional topics in physical chemistry begun in 553 and 554 to include surfaces, structure of solids, mass and heat transport, electrical conduction, heterogeneous reaction kinetics, photochemistry, and polymer properties.

#### 560 Spectroscopic Methods in Organic Chemistry (4)

Modern spectroscopic methods as employed in organic chemical research: NMR, IR, UV, E5R, and mass spectrometry.

#### 571 The Physical Chemistry of Macromolecules (4)

Effects of structure and molecular weight on physical and chemical properties of macromolecules. Topics include molecular weight distribution, solubility, polymer conformation, different types of polymers, synthesis, and reactions. Both synthetic and natural polymers considered.

576 Modern Inorganic Chemistry (5)
Relationship between physical and chemical properties of inorganic substances and nature of bonding and structures involved.

#### 579 Radiochemistry (5)

Application of radiation and radioactive isotopes to problems in chemistry and environmental sciences; detection and determination of radiation; safe handling and disposal of radioactive materials; other problems in environmental radiation safety.

580 Advanced Organic Chemistry (5) Structural theory, stereochemistry, reactive intermediates, and reaction mechanisms.

# 585 Introduction to Toxicology (5) Introduction to chemical, clinical, environmental, and forensic aspects of toxicology, types of poisons, how poisons act, treatment of acute poisoning, and control of poisonous materials.

586 Advanced Analytical Chemistry (5) Fundamental principles of instrumental analysis. Electrochemistry, atomic and molecular spectroscopy, gas and liquid chromatography.

#### 587 Forensic Chemistry (7)

Prereq: 533. Survey of chemical problems most frequently encountered in crime lab and their currently acceptable solutions, as well as special techniques not covered in other analytical chemistry courses. 3 lec, 6 lab.

#### 588C Forensic DNA Typing (4)

Survey of techniques and instrumentation used in the identification, extraction and analysis of DNA obtained from forensic evidence.

#### 589 Basic Biochemistry (5)

Prereq: 302 or 307. Survey course, including introduction to biochemical concepts and techniques, metabolic pathways, and information storage and transmission, with emphasis on directions of current biochemical research.

#### 590 General Biochemistry I (4)

Protein chemistry, enzymology, and nucleic acid chemistry.

#### 591 General Biochemistry II (4)

Prereq: 590. Bioenergetics, metabolism, and metabolic control systems.

**592 General Biochemistry III (4)** Prereq: **591.** Study of integrated molecular systems in biology.

630 Instrument Use and Maintenance (2–4)
Technical information concerning operation and maintenance of sophisticated instruments is presented. Includes preparation of users manuals and videotape presentations that explain and demonstrate techniques. Registration required for access to instruments. Credit allowed more than once, as subjects vary.

695 Research and Thesis (1–15) Research and thesis as recommended by department.

700 Research Techniques (4) Important skills and techniques of chemical research including glassblowing, vacuum techniques, separation methods, etc.

701 Advanced Organic Chemistry (4) Prereg: S80. Organic syntheses.

**702** Advanced Organic Chemistry (4) Prereq: 701. Theoretical aspects of organic chemistry.

703 Physical Organic Chemistry (4)
Prereq: 702. Application of modern concepts to
structure and reactivity in organic reactions of
various mechanistic classes.

704 Heterocyclic Chemistry (4) Theoretical and synthetic aspects.

705 Organometallic Chemistry (4)
Prereq: S76 and S80. Structure and reactivity of organometallic compounds.

706 Natural Products Chemistry (4)
Prereq: 702. Terpenes, steroids, alkaloids, and other natural products.

710 Special Topics in Organic Chemistry (4) Selected topics of current interest.

711 Protein Chemistry (4)

Prereq: 590. Topics and techniques relevant to thorough understanding of current status of protein chemistry. Includes isolation and characterization of proteins by standard techniques and identification of their post-translational modifications.

712 Biophysical Chemistry (4)
Prereq: 590. Applications of physical methods to biological systems, including UV visible, nuorescence, infrared, Raman, and nuclear magnetic resonance spectroscopies.

713 Bioenergetics and the Structure and Function of Biological Membranes (4) Prereq: S92. Membrane biogenesis; development and intracellular trafficking; advanced topics in molecular physiology of membranes.

714 Control and Regulation in Molecular Biology (3)

Prereg: 590. Current concepts in chromosomal structure and function, genetic control of transcription, and translation control of protein synthesis.

**715** Advanced Special Topics in Biochemistry (3) Prereq: S90.

716 Enzymology (4)

Prereq: 590. A study of the subjects and techniques relevant to the structure and function of enzymes. Topics include enzyme kinetics, purification, characterization, and active site chemistry. Current research directions such as the construction of catalytic RNA molecules (ribozymes) and catalytic antibodies are emphasized, along with the recent role molecular biology techniques have played in the enzymology field.

726 Electroanalytical Chemistry (5)

Prereq: \$32. Fundamentals and applications of potentiometry, conductometry, coulometry, voltammetry, amperometry, cyclic voltammetry, chronocoulometry, and spectroelectrochemistry.

727 Spectrochemical Analysis (5)

Prereq: 533. Modern instrumental methods of molecular spectroscopy including Raman, Fourier transform; IR and NMR, circular dichroism, and mass spectroscopy; recent methods of atomic spectroscopy including plasma sources, diode arrays, and television spectrometers; impact of computerization.

728 Theory and Principles of Analytical Separation (4)

Prereq: 586 or 531. Topics include liquid-liquid extractions, partition chromatography, ion exchange, gas chromatography, high pressure liquid chromatography, exclusion chromatography, and electrophoresis.

729 Introduction to Chemometrics (4)
Prereq: 586. Topics include multivariate
calibration, experimental design and optimization, pattern recognition, signal processing, and
multivariate curve resolution.

730 Special Topics in Analytical Chemistry (4–5) Selected topics of current interest: electronics, signal processing techniques, surface analysis, modified and ultramicroelectrodes, hyphenated techniques.

750 Chemical Thermodynamics (4)
Prereq: 558. Application of thermodynamics to mixtures and solutions to take account of solvent-solute interaction and ionic effects.

751 Statistical Thermodynamics (4)
Prereq: S55 and S58. Derivation of thermodynamic principles and data from knowledge of size and shape of molecules and laws of mechanics.

753 Chemical Applications of Group Theory (5) Prerec: SSS. Develops foundations for application of elementary group theory to organize or simplify problems in quantum chemistry. Applications include molecular orbitals, molecular vibrations, and ligand field environments.

754 Chemical Quantum Mechanics (4)
Prereq: 555. Perturbation and variation theory
with application to quantum chemistry; angular
momentum; electron-spin; atomic structure.
Some matrix theory.

756 Solutions (4)

Selected topics in solution thermodynamics such as stoichiometry, determination of equilibrium constants, activity coefficients, and other thermodynamic properties of solutions; theories of electrolytes: electrochemistry, and transport.

757 Chemical Kinetics (4)

Experimental methods of obtaining reaction rates, interpretation of rate data, and relationships between mechanism of reactions and rate equations of reactions.

758 Solid State Chemistry (5)

Develops foundation of basic surface science concepts and techniques. These concepts include structure of clean and adsorbate covered surfaces, chemical bonding of adsorbates, energy transfer mechanisms on surfaces, and catalyzed surface reactions.

761 Molecular Structure I (4)

Prereq: 555. Theoretical principles of rotational, vibrational, and electronic spectra of diatomic and polyatomic molecules.

762 Molecular Structure II (4)

Prereq: S5S. Theoretical principles of nuclear magnetic resonance and electron spin resonance spectroscopy.

763 Radiation and Photochemistry (4)

Comparison of radiation and photochemical reactions; primary and secondary processes; general treatment of free radical mechanisms; isolation and detection of free radicals; radiation dosimetry; chemical and biological effects of radiation.

764 Special Topics in Physical Chemistry (3-4)

775 Theoretical Inorganic Chemistry (4) Prereq: 576. Theoretical principles underlying physical and chemical behavior of inorganic substances.

776 Chemistry of the Representative Elements (4)

Prereq: 576. Descriptive chemistry of A-group elements.

777 Chemistry of Transition Elements (4)
Prereq: 775. Descriptive chemistry of transition
elements and their coordination compounds.

778 Chemistry of Heavy Elements (4)
Prereq: 775. Descriptive chemistry of lanthanides, actinides, and selected heavy metals.

790 Special Topics in Inorganic Chemistry (3-4)

891 Inorganic Chemistry Seminar (2)
Required of inorganic chemistry majors. Selected topics from current literature presented by participating students and staff.

892 Organic Chemistry Seminar (2) Required of organic and biological chemistry majors. Selected topics from current literature presented by participating students and staff.

893 Analytical Chemistry Seminar (2)
Required of analytical chemistry majors. Selected topics from current literature presented by participating students and staff.

894 Physical Chemistry Seminar (2)
Required of physical chemistry majors. Selected topics from current literature presented by participating students and staff.

**895** Doctoral Research and Dissertation (1–15) Research and dissertation as recommended by department.

#### **Classics and World Religions**

http://www.classics.ohiou.edu/

No graduate degree in Classics or World Religions is offered, but some graduate courses are offered each quarter. These can contribute in particular to degree programs in African studies, Southeast Asian studies, international studies, comparative arts, English, geography, linguistics, and philosophy.

For Greek and Latin languages, see under Foreign Languages and Literature.

Classics in English Courses (CLAS)

598 Independent Study in Classical Literature (1–5, max 10)Supervised reading on a specific topic.

#### Classics and World Religions (CLWR)

#### 511 Islam (5)

Introduction to core ideas. Weckman; Y

#### 521 Hinduism (5)

Vedic religion, Hinduism, Jainism. Collins, Weckman: Y

#### 531 Buddhism (5)

Introduction to doctrines, origins, and varieties. Collins, Weckman: Y

#### 541 Taoism (5)

A historical survey of philosophical and religious Taoism from the third century B.C. to the 18th century. Blocker; Y.

#### 581 Myth and Symbolism (5)

Review of theories concerning nature of mythology and symbolic process. Analysis of selected myths and symbols in various religions. literature, and art. Collins, Weckman; Y.

#### 582 Thinking About Death (5)

Survey and analysis of human thought and practices regarding death. Weckman; Y.

583 Contemporary Religious Thought (5) Problem of God; relation of faith and reason, human destiny, religious language—in thought of representative theologians and philosophers such as Tillich and Buber. D.

#### **Conservation Biology**

The Program in Conservation Biology offers an interdisciplinary graduate conservation biology certificate. The program applies a multifaceted understanding of the factors affecting the conservation of biological diversity. It is centered in the Department of Biological Sciences but includes faculty members from the Departments of Environmental and Plant Biology, Economics, Geography, and Political Science.

Students enrolled in any master's or doctoral program at Ohio University are eligible to apply for the certificate. Each application for the certificate program is reviewed by an oversight committee composed of three faculty representatives from participating departments. Each student in the program chooses a certificate advisor to oversee the completion of requirements.

The requirements for the certificate are the completion of BIOS 581 Animal Conservation Biology, BIOS 700 Seminar in Conservation Biology, and three courses from the following list for a total of 17-20 credit hours. Two of the three courses must be outside your major field of study. The certificate is awarded upon fulfillment of these requirements and completion of the graduate degree.

The courses listed here are offered by five departments within the College of Arts and Sciences. In addition, up to five hours of courses offered under titles such as Special Topics or Colloquium that focus on aspects of conservation biology may be applied toward the certificate with the approval of your certificate advisor.

#### Biological Sciences Block

Biological Sciences Block	
BIO5 525	Evolutionary Genetics (4)
BIO5 577	Population Ecology (4)
BIO5 578	Community Ecology (4)
8105 579	Evolution (4)
PBIO 511	Tropical Plant Ecology (4)
PBIO 525	Plant Ecology (5)
PBIO 575	Plant Speciation and Evolution (5)
GEOG 516	Biogeography (5)
GEOG 517	Landscape Ecology (5)
GEOG 544	Agricultural Ecosystems (5)

#### Natural Resource Economics and Policy

ECON 513	Economics of the Environment (
ECON 514	Natural Resource Economics (5)
GEOG 547	Resource Management (5)
GEOG 553	Environmental Planning (5)
POL5 510	Public Policy Analysis (5)
POL5 525	Environmental and Natural Resources Policy (5)
POL5 526	Politics of the Contemporary Environment Movement (5)

#### Sociological Aspects of Conservation Biology

ANTH 578 Human Ecology (5) GEOG 521 Population Geography (5)

#### **Contemporary History** Institute

http://cscwww.cats.ohiou.edu/conhist/ CHi2.htm

The Ohio University Contemporary History Institute, created in 1987, offers a unique course of interdisciplinary study, mainly on the graduate level, that trains students to apply historical perpectives in analyzing recent events and contemporary policy issues. The institute is centered in the Department of History, but it also draws faculty and students from the Departments of Economics and Political Science, the E. W. Scripps School of Journalism, and the Honors Tutorial College.

The institute does not grant degrees but offers a certificate in contemporary history that serves as an adjunct to the M.A. and Ph.D. degrees in history, the M.A. degrees in economics and political science, the M.S. in journalism, and the Ph.D. in mass communication (journalism sequence). The institute's certificate also can be earned in connection with a fouryear Honors Tutorial College bachelor's degree in one of the participating departments. Students receive the institute's certificate after satisfactorily completing a sequence of interdisciplinary seminars and tutorials focusing on the methodologies, themes, and issues in contemporary history and writing a thesis or dissertation on some aspect of that subject that meets the requirements of the degree-granting department.

#### Admission

Apply for admission in history, economics, journalism, or political science using the standard application form but indicating contemporary history as the specific area within the graduate major in which you wish to work. If you are an Honors Tutorial College student, apply through your departmental director of tutorial studies.

The Contemporary History Institute admissions committee will evaluate your application only after you have been granted admission to one of the participating departments. All applicants to the institute are considered automatically for fellowships. You may be asked to provide additional supporting material.

Admission to the Contemporary History Institute is granted only for classes beginning in the fall quarter of each academic year. Applications for fall must be received by February 1.

#### Requirements

1 You must formally enroll in an existing M.A. program in the Department of History, Economics, or Political Science; the M.S. program in the E. W. Scripps School of Journalism; or the Ph.D. program in history or mass communication (journalism sequence). Fourth-year Ohio University Honors Tutorial College students majoring in participating departments also are eligible. Upon completing all requirements in one of those programs, you will receive the appropriate degree.

- 2 Within your degree-granting department, you must concentrate no less than half the required coursework in courses that deal in a substantial way with the post-1945 period.
- **3** You must complete the sequence of courses listed below.

# Contemporary History Institute Courses (CH)

- **601** Introduction to Contemporary History (5) Investigates the nature of contemporary history: major philosophical and conceptual approaches; interpretive trends; and methodologies. *Y.*
- 602 Themes in Contemporary History (5) Examines major forces that have shaped the contemporary world; nationalism, democratization, colonialism, racial and ethnic conflict, globalization, etc. W; Y.
- 603 Issues in Contemporary History (5) Focuses on contemporary issues with policy implications. Students apply the conceptual and methodological approaches encountered in CH 601 and 602 to selected problems facing current decision-makers. *Sp; Y.*
- 604 Special Project (in Contemporary History) (1-5)

Individualized study, usually in the form of a one-on-one tutorial with an outside expert, although internships or enrollment in courses at other universities can be used to fulfill this requirement.

#### **Economics**

http://cscwww.cats.ohiou.edu/economics/

As a student beginning graduate work in economics, you should ordinarily have some undergraduate training that includes courses in the social sciences or business administration. However, a wide variety of areas of concentration relate to or provide appropriate background knowledge for advanced study in economics. If your undergraduate major is not economics or a related field, you will take a placement test to determine whether you need to take ECON 503 Microeconomics and/or ECON 504 Macroeconomics.

Undergraduate courses in principles of economics, statistics, intermediate micro and macro theory, and some quantitative orientation are ordinarily prerequisites for graduate work in this area, although you may be permitted to make up these deficiencies while pursuing a graduate program. Your undergraduate program must be approved by the department admissions committee before you begin graduate

work. You are advised to take the Graduate Record Examination and submit scores with your application. If you are an international student, take the Test of English as a Foreign Language and submit scores with your application.

It is preferable that you enter the graduate program during the summer or fall quarter. It is possible, however, to begin studies in the winter or spring quarter. For financial assistance, it is advisable to apply before March 1 for the following fall quarter.

We offer two tracks within our graduate program: (1) The Applied Economics Track; and (2) The Financial Economics Track. For the first track you are required to:

- 1 complete a core requirement comprising 603A & B Advanced Microeconomic Theory, 604A & B Advanced Macroeconomic Theory, 635 Econometrics, 638 Applied Econometrics, 500 Mathematical Economics Foundations, 501 Statistical Foundations, and 698 Colloquium
- 2 concentrate in one area from the following list of fields: business economics; economic planning, growth, and development; industrial organization; international economics; labor economics; monetary economics; natural resources; public finance and policy; and urban and regional economics
- **3** complete a research paper in a topic within the area of concentration. (ECON 696).

You may use additional electives to complete the required 61 graduate hours.

For the second track you are required to:

- 1 complete a core requirement comprising ACCT 610, 611; ECON 500, 600, 601, 639, 640, 644; FIN 620, 621, 622, 623, 650. Accounting courses are offered by the School of Accountancy and finance courses by the Department of Finance of the College of Business.
- **2** complete an internship/research paper. (ECON 670).

#### **Economics Courses (ECON)**

500 Mathematical Economics Foundations (5) Introduction to differential calculus, integral calculus, and linear algebra with economic and business models and applications. 5ame as OBA 500.

#### 501 Statistical Foundations (5)

Basic topics of statistics are discussed, including descriptive statistics, probability theory, random variables, mathematical expectation, binomial and normal distributions, sampling theory and central limit theorem, point and interval estimation, and hypothesis testing.

#### 503 Microeconomics (5)

Analysis of prices, markets, production, wages, interest, rent, and profits.

#### 503W Microeconomics (3)

Analysis of prices, markets, production, wages, interest, rent, and profits. Accelerated workshop course for M.B.A. students.

#### 504 Macroeconomics (5)

Factors determining level of nation's economic activity and growth and stability in nation's economy.

#### 504W Macroeconomics (3)

Factors determining level of nation's economic activity and growth and stability in nation's economy. Accelerated workshop course for M.B.A. students.

#### 505 Managerial Economics (5)

Prereq: non-econ. Decision making in enterprise: market environment; measurement of influence of policy and nonpolicy variables on sales and cost; empirical studies of market structure and pricing. (Not open to students who have had 505W or to graduate students in economics.)

#### 505W Managerial Economics (3)

Prereq: non-econ. Decision making in enterprises: market environment measurement of influence of policy and nonpolicy variables in sales and costs; empirical studies of market structure and pricing. Accelerated workshop course for M.B.A. students. (Not open to students who have had 505 or to graduate students in economics.)

# 506 Monetary Theory and Policy (5) Use of economic theory to formulate monetary policy for minimizing cyclical fluctuations in economic activity.

507 History of Economic Thought (5)
Major economic doctrines: mercantilists and
cameralists, physiocrats, Adam Smith and classical
school, historical school, Austrian school, Alfred
Marshall, and neoclassicists.

#### 510 Urban Economics (5)

Application of economic analysis to urban problems; urban economic growth and structure (location patterns, land use and environment, urban transportation, and housing); human resources in urban economies and the public sector in a metropolitan context.

# 511 Inequality of Personal Wealth and Income (5)

Prereq: course in statistics. Quantitative and qualitative differences in wealth and income between low, middle, and high income groups in society using historical, statistical, and mathematical techniques.

#### 512 Economics of Poverty (5)

Incidence, causes, and consequences of poverty in affluent society. Economic theory, history, statistics applied to analysis of poverty reduction measures.

513 Economics of the Environment (5)
Economic analysis of such environmental matters
as air, water, and noise pollution; population
growth; and land use. Emphasis on use of
economic theory and empirical research in
evaluating environmental policies.

515 Economics of Health Care (5)
Demand for medical care, supply behavior of profit and nonprofit agencies, market structure, adverse selection, public and private health insurance.

#### 520 Labor Economics (5)

Demand for labor, supply of labor, household production, compensating wage differentials, education and training, discrimination, unions, and unemployment.

#### 521 Labor Legislation (5)

Prereq: 520. Law bearing upon labor problems: labor relations legislation, old-age and unemployment insurance, workmen's compensation, wages-and-hours legislation.

522 Economics of Human Resources (5)
Current development in theory, empirical research, and policy with respect to investment in human resources, economic value of education, manpower programs, and growth.

#### 525 Public Policy Economics (5)

Survey of economics approach to analyzing public policy issues. Uses concepts of welfare economics, public choice economics, and cost-benefit analysis as applied to samples of policy subjects.

#### 530 Public Finance (5)

Study of government revenues and expenditures. Theories of government growth, public goods, and externalities. Introduction to public choice topics such as the median voter model, cyclical majority, and rent-seeking. Positive analysis of taxation.

**531** Economics of Transportation (5) Economics of transport pricing, regulation of transport, and national transport policy.

#### 532 Industrial Organization (5)

Market structure, especially oligopoly, and firm behavior in price and nonprice competition. Topics include location, product quality, advertising, research and development, and patent incentives. Emphasis on economic welfare.

533 Government and Agriculture (5)

American agriculture as an industry: econo

American agriculture as an industry; economics of government policies and programs; consideration of forces and objectives in policy formation.

#### 535 Economics of Energy (5)

Economic theory applied to energy policy issues in the U.S., including questions of sources of supply, conservation, pollution control, foreign dependence, monopoly control, special interests, and future generation equity.

537 Government Regulation of Business (5) Economics of regulated industries. Economic underpinnings, regulatory instruments, and impact on firm and society. Industries of interest include various public utilities, communications, and transportation. Also focuses upon product and labor safety.

540 International Trade Theory (5)

International trade patterns, theories of absolute and comparative advantage, classical and modern trade theory, tariffs, quotas, nontariff barriers, preferential trading arrangements.

541 International Monetary 5ystem (5)

How exchange rates are determined, fixed vs. flexible rates, government intervention, fiscal and monetary policy in open economy, transmission of inflation and unemployment among nations, international capital movements, covered interest arbitrage, forward exchange, Eurocurrency markets.

542 International Economic Policy (5)

Prereq: S40. Current economic developments of foreign and U.S. economic policy. Commercial treaties and tariff policy; exchange rate instability; balance of payments problems including LDC debt situation; international liquidity issues; trade relations among industrial, underdeveloped, and former Soviet-bloc countries; multinational corporations; roles of institutions such as World Bank, International Monetary Fund, and GATT.

#### 544 Futures Markets (5)

Prereq: 360 or FIN 327. Examines futures markets in terms of the instruments traded, the institutional features of the markets, the participants, and their economic strategies, including speculation and hedging. Describes and analyzes the various futures and options markets to understand how the exchanges operate and to realize the pitfalls and dangers, as well as the possibilities and opportunities of participation.

550 Economic Development (5)

Analysis of developing regions of the world including the interplay of population growth, the demaind for food, and the environment. Measures of poverty and inequality. Models of economic growth

552 Economic History of the United States (5) Economic development of United States. Growth of banking, manufacturing, labor unions, and agriculture from colonial times to present.

553 European Economic History (5)

Economic growth of developed countries; industrial revolutions in Great Britain, France, Germany, the former Soviet Union, and Japan. Historical experiences of these countries related to various theories of economic change.

554 Latin American Economic History (5) Fundamental assumption is that current problems of economic development of Latin America can be better understood if student has solid knowledge of economic history of region. One-half to two-thirds of course covers economic history with emphasis on larger countries such as Brazil, Argentina, Chile, Peru, and Mexico. Particular attention given to legacies of past which affect current foreign private investment, etc. Latter part of course discusses current problems such as declining terms of trade, import substitution, urbanization, national and regional planning, etc.

555 African Economic Development (5) Prereq: 550. African societies as traditional economies and in process of modernization.

561 Monetary History of the United States (4) Correlation of developments in American history with development of monetary institutions, policy, and theory. Evolution of commercial and central banking and relationship to economic activity in history of U.S.

570 Comparative Economic Systems (5) Theoretical and institutional characteristics of capitalism and socialism with emphasis on prevailing economic systems in the U.S., England, and Russia.

573 Economics of Southeast Asia (5)
Prereq: 550. Economic characteristics, development problems, strategies, and prospects of countries of Southeast Asia.

574 Economics of Latin America (5)

Macroeconomic trends and obstacles in modern Latin America including import substitution industrialization, debt, inflation, exchange rate regimes, trade, and reform. Microeconomic analysis of poverty, inequality, the rural sector, and the informal sector.

575 The Chinese Economy (5)
Prereq: 550. China's early industrialization,
1880–1931; socialist transformation of each
economic sector, 1949–1967; overall performance

of Chinese economy and each economic sector, and Maoist revision of orthodox Marxist-Leninist economic doctrines.

600 Managerial Economics (5)

Measuring economic relationships, analyzing market behavior, and examining some major economic decisions of business firm.

#### 601 Macroeconomics and Business Fluctuations (5)

Analyses of demand for money, inflation, interest rates, capital growth, asset markets, financial intermediaries, and the relationship between money and the business cycles. Other topics include national income, savings, investment, unemployment, fiscal, and monetary policies.

603A Advanced Microeconomic Theory I (5) Consumer behavior under certainty and uncertainty, theory of the firm, and perfect competition.

603B Advanced Microeconomic Theory II (5)
Prereq: 603A. Theory of imperfect markets,
General Competitive equilibrium, public goods
and externalities, introduction to game theory,
and application of optimization tools learned in
603A.

604A Advanced Macroeconomic Theory I (5) Aggregate Demand (I5-LM) and Aggregate Supply, Money Supply and demand, inflation dynamics, rational expectations, real business cycle, monetary and fiscal policy, and long-run growth model.

604B Advanced Macroeconomic Theory II (5)
Prereq: 604A. Price expectations, rational
expectations, Phillips curves, stabilization policy,
new classical macroeconomics, wealth in a macro
model, open economy macro equili-brium, and
econometric literature of macro models.

#### 635 Econometrics I (5)

Prereq: 500 and 501. Basic topics of econometrics are discussed, including simple linear regression models, violation of classical assumptions (heteroskedasticity, autocorrelation, etc.), multiple linear regression models, multicollinear-ity, specification errors, dummy variables models, and basic simultaneous equations models.

#### 636 Econometrics II (5)

Prereq: 635. Advanced topics of econometrics are discussed, including convergence in distribution, multivariate normal distributions, distribution of quadratic forms, large sample tests (LR, Wald, LM tests), generalized linear regression models, seemingly unrelated regression models, simultaneous equations models, and generalized method of moments estimators.

637 Applied Forecasting (5)

Prereq: 501. Simple forecasting methods, forecasting with econometric approach, time series methods, and the Arima models. Empirical model building using real-life data and these models.

638 Applied Econometrics (5)

Prereq: 635. Basic techniques of empirical econometric modeling are introduced and applied topics of econometrics are discussed. Applied topics include specification error tests (RESET, CUSUM, etc.), model selection tests, causality tests, unit root tests, cointegration tests, error correction models, distributed lag models, logit and probit models, limited dependent variables models, GARCH-type models, and translog cost functions.

## 639 Statistics and Econometrics: Theory and Application (5)

No credit if 635. Probability theory and hypothesis testing, classical linear regression and various diagnostic tests and remedies for violations of classical assumptions, and various forecasting models.

## 640 International Trade and Financial Economics (5)

No credit if (540 and 541). The benefits from international trade. The law of comparative advantage, the factor endowment explanation of interational trade, and other theories of international trade. Other topics include foreign exchange markets, interest arbitrage, portfolio theory, balance of payments, and international banking.

#### 644 Financial Derivatives (5)

No credit if 544. A risk management course dealing with contract specifications. Characteristics of options and trading procedures, and the pricing mechanism that joins commodity, options, futures, and futures options markets.

#### 670 Internship/Research Paper Complete an internship or write a scholarly paper on any topic in financial economics.

685 The Methodology of Economics (5) Economics as a scholarly discipline. Nature and role of theory in economics. Relationship between economic theory, hypothesis formulation, and methods of empirical testing of hypotheses.

#### 691 Seminar in Economics (2–6) Seminars in following general areas: theory and thought; growth and development; monetary and fiscal; theory and policy; labor and human resources.

693 Readings in Economics (1–6)
Readings in selected fields in economics under direction of staff member.

#### 696 Master's Seminar (5)

Writing of scholarly papers in areas of economics.
Required of all master's candidates.

# 697 Independent Research (1–12) Research in selected fields in economics under

Research in selected fields in economics unde supervision of staff member.

#### 698 Colloquium (1)

Selected topics of current interest. Required of all graduate students.

#### English

http://www.english.ohiou.edu/index.html

#### **Master's Program**

Students enter an M.A. program in English for a variety of reasons. Some wish simply to extend their liberal education beyond the bachelor's level; others want professional training for high school or junior college teaching; still others see the M.A. as a stepping stone to the Ph.D. and a career in college teaching. The Department of English offers an M.A. program that meets the diverse needs of these different students. We believe all students should have a thorough grounding in the basic elements of literary study; thus, all students must satisfy a common set of core requirements. We also believe, however, that you should have the right to give your studies a particular emphasis; thus, we offer a choice of five departmental concentrations. These concentrations are carefully selected groups of courses that give each master's program a distinctive focus.

Our M.A. program is a two-year undertaking, although full-time students who are not teaching associates may complete it in less than two years.

Admission. Application must be made to the Office of Graduate Studies. You should present at least 27 quarter hours (18 semester hours) of superior work on the undergraduate level in English language and literature. You should also submit evidence of having completed one full year of college-level foreign language beyond the freshmanlevel language requirement. This can be either one year of intermediate (sophomore) level or one year of advanced (junior or senior level) foreign language. You may apply if you do not meet the foreign language prerequisite but otherwise have outstanding qualifications for graduate study; however, if accepted, you must complete two quarters of a graduate foreign language reading course before graduating. Applications for admission also will be considered from students who have had extensive training in academic fields closely related to English. You should arrange for letters of recommendation from three professors with whom you have studied on the undergraduate level to be sent to the Graduate Director in English.

You must, in addition, submit your scores for the Graduate Record Examination (general test only), a statement of purpose, and a writing sample. For potential creative writing students, the writing sample should be a portfolio of poems, a manuscript of short fiction, or a selection of creative nonfiction. All other applicants should submit to the English Graduate Director a critical essay completed for undergraduate academic credit at the junior or senior level.

You must apply by January 15 for entry in fall quarter of the following academic year.

- **M.A. Requirements.** To pursue the Master of Arts in English, you must satisfy the following requirements:
- 1 Bibliography and Methods. ENG 593 Bibliography and Methods deals with enumerative and descriptive bibliography and methods of scholarship. It also provides a general introduction to graduate study and research in English literature and language.
- 2 English Language. The English language requirement can be met by one of two courses—ENG 503 English Language or ENG 504 American English.
- 3 The Teaching of English. ENG 591 Problems in Teaching College English, ordinarily taken in your first quarter of residence, is designed to offer various kinds of practical and theoretical information and discussions about teaching.
- **4** Literary Theory. You will take at least one course that has as its primary focus critical theory.
- **5** Master's essay or thesis. The master's essay is a scholarly essay of publishable quality, substance, and length, written as an extension of work done in a seminar but researched and reshaped to meet professional standards of scholarly publication. The master's essay prospectus and the essay are submitted during the winter and spring quarters of your second year.

Like the master's essay, the master's thesis is expected to show originality, rigor of argument, and thoroughness of research and documentation. It should, however, include more extensive research than a master's essay, particularly more detailed analysis of the theoretical approach being used, a wider and deeper survey of research and scholarship, and a more thorough contextualization of the central argument. The creative writing thesis is a piece or collection of original creative writing.

**6** Area distribution. You are required to take seminars in at least three of the following six periods:

Medieval
Renaissance
Restoration and Eighteenth Century
Nineteenth Century British
Twentieth-Century British
American Literature

Of these three seminars, one must focus primarily on literature before 1700, one on literature after 1700, and one on American literature.

7 Departmental concentration. You are required to take a sequence of three courses from one of the following concentrations:

Literary History Creative Writing Literary Theory Composition and Rhetoric Women's Studies

**8** Foreign language. If you have not met the foreign language prerequisite for admission, you must complete two quarters of a graduate foreign language reading course.

#### **Doctoral Program**

The Ph.D. in English is designed primarily as professional training for teachers and scholars of literature, composition, and creative writing. Such training requires at least four elements: a solid general background in literary history, a detailed knowledge of a specialized area, successful completion of a scholarly, critical, or creative dissertation, and—for those with assistantships—experience teaching a variety of courses.

Admission. You must apply for admission to the Office of Graduate Studies. Your application should include complete graduate and undergraduate transcripts, Graduate Record Examination scores, three letters of recommendation, a statement of purpose, and a writing sample.

- **Ph.D. Requirements.** To earn a Ph.D. in English, you must fulfill the following requirements:
- 1 M.A. requirements. If your M.A. program did not include the following requirements or their equivalents, you must fulfill them as part of the Ph.D. program: ENG 591 Problems in Teaching College English, ENG 593 Bibliography and Methods, a course in literary theory, and a course in the history of the English or American language.
- 2 General course requirements for doctoral students in literary history. You are required to take three doctoral

seminars in areas of literature outside your area of specialization. You are also required to complete one course in composition and rhetoric and one course in creative writing or two courses in either of those areas.

- 3 General course requirements for doctoral students in creative writing. You are required to take two doctoral seminars in an area of literature outside your area of specialization, as well as one course in composition and rhetoric. You are also required to take two workshops a year for the first two years of your program, including one in a genre that is not your primary one, and a fifth workshop in your third year as part of your preparation for the creative writing dissertation.
- 4 General course requirements for doctoral students in composition and rhetoric. You are required to take two doctoral seminars in literature, five doctoral seminars in composition and rhetoric, and one graduate course in creative writing.
- **5** Colloquium. You are required to take the doctoral colloquium on the profession of English (777) during all quarters of coursework.
- **6** Specialized course requirements. Literary history and creative writing students must take at least two doctoral seminars in their area of specialization, chosen from a list of six literary periods.
- **7** Exam requirements. Ph.D. area exams are given in your third year of coursework and consist of three portions, which vary according to your concentration.

The reading lists for all three portions of the exam will be drawn up by your examining committee with your consultation.

- **8** Foreign language requirement. All Ph.D. students will have reading knowledge of one foreign language, to be proved by the Princeton exam or equivalent.
- **9** Dissertation and oral presentation. The main criterion for the dissertation is quality, not quantity. You are encouraged to plan a dissertation that is original, significant, and ideally, publishable.

Once a topic has been decided upon, you and your advisor will draw up a prospectus to be approved by the dissertation committee.

In lieu of the traditional oral examination, you will deliver a public lecture on some aspect of your dissertation and lead a discussion on the work.

Supervised Teaching. All Ph.D. students holding assistantships are expected to teach as part of their professional training. Because Ohio University is a moderate-sized state university, it has a wide variety of undergraduate English courses to be staffed. Consequently, graduate assistants receive considerable experience in teaching different courses. As a Ph.D. graduate assistant, you will probably leave the University having taught at least four or five different courses at the freshman through junior levels. Although you will have received supervision, you will have been primarily responsible for organizing and teaching these classes. Recent Ph.D. graduate assistants have found this varied experience particularly valuable when they enter the professional job market.

#### **English Courses (ENG)**

503 English Language (5)
Sounds, inflections, syntax, and vocabulary of English from 1000 to present.

504 American English (5) Historical and geographical development of American English from a linguistic point of view.

511 18th-Century Novel (5)
Development of novel form in 18th century.
Defoe through Austen.

512 19th-Century Novel (5) Critical analysis of novels by Dickens, Thackeray, Trollope, the 8rontes, Eliot, Meredith, and Hardy.

515 19th-Century Prose (Nonfiction) (5) 5tudies in nonfiction prose, mainly the personal essay, literary criticism, social criticism, biography.

**520 5tylistics (5)** Problems in the description and analysis of style in literature.

**524 Shakespeare (5)** Intensive study in specific critical and historical problems.

531 A Major Medieval Genre (5)
Development of major genre: lyric, epic,
romance, or drama; close critical attention to
representative texts.

532 Renaissance Drama (1590–1642) (5) English drama (excluding Shakespeare) from Ben Jonson to closing of theaters.

536 History of Criticism (5) Critical theory and practice.

537 History of Criticism (5) Continuation of 536.

540 Studies in Comparative Literature (5) Literary movements, themes, or genres. Different topic studied each time offered, e.g., symbolist and surrealist movement, baroque in western literature, concept of realism or romanticism, grotesque in literature.

- 541 Studies in Comparative Literature (5) Continuation of 540, See 540 for description.
- 542 Studies in Comparative Literature (5) Continuation of 540 and 541. See S40 for description.
- **551 Teaching Language** and **Composition (3)** Studies materials, methods, and techniques of language and composition instruction in secondary school settings.

551L Field Experience in Secondary

English/Language and Composition (1) Provides practical applications of materials, methods, and techniques of language and composition instruction in secondary school settings. Students observe classroom teachers and carry out various instructional tasks as the cooperating teachers deem appropriate.

552 Teaching Literature (3)

Studies materials, methods, and techniques of teaching literature in secondary school settings.

552L Field Experience in Secondary English/Literature (1)

Provides practical applications of materials, methods, and techniques of teaching literature in secondary school settings. Students observe classroom teachers and carry out various instructional tasks as the cooperating teachers deem appropriate.

555 English Education Workshop (1-5)

Prereq: teaching certificate or equiv. Studies in principles, problems, approaches, and issues in teaching of English from elementary school to post-secondary. Topics determined according to need and demand.

556 Teaching Young Adult Literature (5) Studies authors, works, genres, and aesthetic bases of literature for young adults.

561 Colloquium (5)

Specific interdisciplinary problems to be assigned each quarter.

562 Colloquium (S)

See S61 for description.

563 Colloquium (5) See S61 for description.

S70 Studies in Literature (5)

Advanced study of a period or of some aspect of a period (a movement, genre, author, etc.) of English or American literature. Designed to supplement undergraduate training and provide intensified training in areas of concentration. Following areas scheduled regularly: (A) Medieval language and literature, (B) Age of Chaucer, (C) 16th century, (D) Spenser, (E) 17th century, (F) Milton, (G) Restoration, (H) Earlier 18th century, (I) Later 18th century, (K) Romantic poets, (L) Major Victorian poets, (M) Minor Victorian poets, (N) 20th century, (O) American literature to Civil War, (P) American literature, Civil War to WWI, (Q) African American literature.

575 Theory and Teaching Technical Writing (5) Problems in teaching technical writing. Practice in writing feasibility studies, proposals, progress reports, and a range of minor items from abstracts to letters of transmittal. Techniques and standards of good business and professional writing.

S80 Internship (4-5)

Internships in various University offices provide firsthand, on-the-job experience in areas where you may usefully employ your verbal skills and aptitudes. Coordinated by and evaluated by

graduate chair in English and director of office in which you are placed.

5B5 History of Books and Printing (4)
Broad introduction to history of the book and its
place in development of Western culture from
ancient world to present.

590 Independent Reading (1–5, max 15) Directed individual reading and research.

591 Problems in Teaching College English (1–5) Introduction to methods of teaching writing.

591A Teaching College English II (3) English S91A is designed for teaching associates who have full responsibility for their own sections of English 151 (Rhetoric and Writing), and who have in the previous quarter taken English 591 (Teaching College English I) or its equivalent. The purpose of English 591A is to provide further training and pedagogical assistance for T.A.s teaching English 151, to continue the examinations of theory and pedagogy begun in English 591, to introduce

T.A.s to teaching writing courses other than 151, and, most importantly, to offer T.A.s one-on-one observations, followed by evaluations and assistance in improving their teaching.

592A Major Rhetorical Theories

and the Teaching of Composition (5) Introduction to major rhetorical theories underlying modern composition pedagogy. Invention, form, and style are examined from historical perspective.

592B Composition Research and Teaching (5) Graduate-level survey of recent and significant research on writing process (composing, revising, editing, audience analysis); other problems in teaching writing also studied (evaluation, basic writing, writer's block, and other special problems).

592C Rhetoric in Reading (5)

Links teaching of writing to teaching of reading through study and application of contemporary theories of reader-text interaction.

# 592D The Rhetorical Tradition and the Teaching of Writing (5)

Relates classical rhetorical theory to developments in contemporary rhetorical theory, criticism, practice, and pedagogy.

593 Bibliography and Methods (5) Enumerative and descriptive bibliography; methods of criticism and scholarship.

650 Master's Essay (5)

Preparation of master's essay prospectus: topic, review of relevant criticism, and methodology to be used in the essay.

651 Master's Essay (5)

Prereq: 650. Completion of master's essay.

690 Creative Writing Seminar (5)

Prereq: 6 hrs creative writing. Criticism of manuscripts and discussion of problems of form.

**691** Creative Writing Seminar (5) Prereq: 6 hrs creative writing.

**692** Creative Writing Seminar (5) Prereq: 6 hrs creative writing.

694 History of the Essay (5)

Surveys the history of the essay and its varieties: familiar, literary, philosophical, critical, theoretical, and personal.

69S Thesis (5-10)

701 Formal Stylistics (4)

Research on selected topic in formal characterization of texts.

715 Theory of Teaching Literature (5)
Discussions of theoretical and practical problems
of teaching literature in colleges and universities.

716 Apprenticeship in Teaching Literature (5)
Prereq: perm. Experience in teaching upper-level
undergraduate literature courses in specialized
areas by observing and teaching with outstanding graduate instructors.

724 Problems in Shakespeare (5)

Prereq: Ph.D. applicancy. Intensive research in specific problems in area of Shakespeare criticism and scholarship.

765 Theory of Literature (5)

Investigations into nature of literature and problems of practical literary criticism.

770-776 Seminars in Literature (5)

Prereq: Ph.D. applicancy. Seminars customarily offered every year in each of seven areas. In any particular year, multiple seminars may be offered in same area (e.g., a seminar in early Renaissance and one in late Renaissance or a seminar in Romantic and one in Victorian).

770 Medieval (5)

771 Renaissance (5)

772 Restoration and 18th Century (5)

773 19th Century (5)

774 20th Century British and American (5)

775 American (5)

776 Comparative Literature (5)

777 Colloquium on the Profession of English Teaching and Research (1)

Prereq: Ph.D. applicancy. Prepares students for the profession of college teaching and research in English.

780 Special Studies Seminar (1–5)

Prereq: Ph.D. applicancy. Seminars on individual writers and individual works. Offered when there is student demand or a widely recognized specialist on staff.

781 Research (1–15)

Covers period when student is doing necessary research for prospectus. Also used to cover special research courses, e.g., problems in editing, problems in historical research, etc.

782 Research (1–15)

Continuation of 781. See 781 for description.

791 Professional Issues in Teaching College English (1–5)

Colloquium for apprentice teachers designed to explore alternative approaches to classroom planning and presentation. Encourages exchange of ideas and problems among teachers; evaluation methods, syllabi, and texts; development of a sense of professionalism in teaching.

792E Reading, Writing, and Pedagogy in the Information Age (S)

Investigates recent debates about the effects of electronic media on post-secondary literacy and writing instruction within the context of English studies. Emphasizes hands-on experience with electronic discourse through participation in electronic venues and composition in digital media.

792F History of Composition (5)

Examines some of the forces, both internal and external, that have influenced the teaching of writing over the past two hundred years and that have shaped the relatively new discipline of composition. Provides a context in which students can situate themselves individually in the discipline.

895 Dissertation (1–15)

# **Environmental and Plant Biology**

http://www.plantbio.ohiou.edu/

Doctor of Philosophy and Master of Science degree programs are offered in biochemistry, cell biology, ecology, evolution, molecular biology, plant morphology, mycology, paleobotany, plant physiology, and plant systematics. (The doctoral degree is awarded through the Department of Biological Sciences.) The department also participates in the interdisciplinary M.S. and Ph.D. programs in molecular and cellular biology and the M.S. program in environmental studies.

To begin graduate study, you must have at least 24 quarter hours (or equivalent) of botany and/or related biological sciences. You also must have completed genetics, organic chemistry, and quantitative skills (i.e., calculus, statistics, or computer science). You may eliminate deficiencies in undergraduate preparation during the course of graduate study. Scores from the aptitude test of the Graduate Record Examination are required and the biology advanced test is recommended. Foreign applicants whose native language is not English must submit scores from the Test of English as a Foreign Language (TOEFL) as an evaluation of English proficiency.

For Ph.D. students, an advisory committee will determine the program of study, including coursework and quantitative skills (e.g., calculus, statistics, computer science). All graduate students are required to teach a minimum of two quarters during their tenure in the department. A research thesis (M.S.) or dissertation (Ph.D.) resulting from original research is required. A nonthesis terminal M.S. degree is also an option.

Applications for admission to graduate study in environmental and plant biology are accepted during all quarters. Applications for financial aid for the following academic year should be received by February 15.

# Environmental and Plant Biology Courses (PBIO)

S07 Algal & Bryophyte Morphology (6) Comparative studies of structure, evolutionary relationships, life histories, and reproduction of selected representatives of major groups of algae and bryophytes. 4 lec, 4 lab. *Vis*; *Sp*; *A* 

**508** Vascular Plant Morphology (6)
Comparative morphology, anatomy, and life histories of vascular plants. 3 lec, 6 lab. *Rothwell; F; Y.* 

509 Plant Systematics (6)

Principles and methods of systematics; angiosperm taxonomy; processes and patterns of vascular plant evolution. Emphasis in lab on angiosperm floral morphology, pollination mechanisms, and family characteristics. 3 lec, 6 lab, Saturday field trip. Cantino; Sp; Y.

510 Biology of Fungi (5)

Life histories and characteristics unique to fungi Collection and identification of mushrooms, plant pathogens, and slime molds. Biotrophic, saprotrophic, and necrotrophic relationships of fungi with plants. Field and laboratory. 4 lec, 2 lab. Cavender; F; Y.

511 Integrative Tropical Plant Biology (4) Field course of tropical plants in Belize/ Guatemala important in sustainable food, fiber, and medicine production and ecosystem stability. 2 lec, 4 lab. Cavender; W; Y.

515 Quantitative Methods in Plant Biology (5) Prereq: introductory statistics. Lecture: biostatistics and applications in the plant sciences; scientific method, hypothesis testing, and design of experiments; sampling, data analysis, regression and correlation, analysis of variance, parametric and nonparametric statistics. Lab: microcomputer applications in spreadsheet analysis, statistics, and graphics. 4 lec, 2 lab. McCarthy; W; Y.

518 Writing in the Plant Sciences (4) Current research and public controversy dealing with topics in biology and plant science will provide students opportunities to practice and master skills needed for successful written communication in the fields of plant science and biology. 4 lec. Wyatt, Sp; Y.

520 Phycology (5)

Classification, nomenclature, relationships, morphology, reproduction, life histories, and economic importance of freshwater and marine algae. 3 lec, 4 lab. *Vis*; *D*.

522 Tropical Plant Ecology (4)

Prereq: PBIO or BIOS major or perm. Tropical rainforest studies around the world, including basic plant ecology, conservation, and management. 4 lec. *Matlack; F; Y.* 

526 Physiological Plant Ecology (5)

The effects of biotic and abiotic environmental factors on the physiological responses of plants. 3 lec, 4 lab. *Brown; Sp; A.* 

527 Molecular Genetics (3)

Fine structure of gene, biochemistry of gene action, genetic regulation. 3 lec. Showalter; Sp; Y.

531 Cell Biology (5)

Biochemical, cytochemical, and ultrastructural aspects of the nucleus and cytoplasmic organelles, mitosis, meiosis, and cellular differentiation. 3 lec, 4 lab. *Mitchell and Trese: F: Y.* 

535 Plant Population Biology (5)

Acquaint students with basic demographic processes as experienced by plant populations; 2) explore the demographic implications of a range of plant growth forms and life histories; 3)

present the material in the context of a variety of models. The course will take an evolutionary/behavioral approach to plant populations. 3 lec 4 lab. Matlack; W; Y.

\$36 Plant Community Ecology (5)

Advanced concepts and theory of plant community ecology. Emphasis will be placed on the interplay between theory and empirical studies. Classic literature will be reviewed and case studies developed from the modern literature to explore current ideas of theory, approach, and experimentation. Laboratories will emphasize modern field methods of vegetation analysis and environmental assessment. 3 lec 4 lab. McCarthy; F; Y.

537 Ecosystem Ecology (4)

Analysis of the composition, function, and heterogeneity of ecosystems. Topics include: atmospheric, climate and geological controls on ecosystem function, comparisons of aquatic and terrestrial ecosystems, ecosystem production, nutrient cycling and trophic dynamics. Synthesis with evaluation of human impacts on ecosystems, locally and globally. Brown; Sp; A.

#### 542 Experimental Anatomy of Plant Development (5)

The concepts of plant development have been integrated with the descriptive assessment of cell, tissue, and organ types that are the mainstay of plant anatomy to provide an exciting opportunity for all plant biologists. The course is grounded in experimentation and includes cutting edge methodologies. 3 lec 4 lab. Wyatt and Rothwell;

550 Biotechnology and Genetic Engineering (4) Introduction to basic molecular biological concepts and techniques in biotechnology and genetic engineering, including discussion of current experimentation and progress in these fields. 4 lec. Showalter; F; Y.

S60 Paleobotany (6)

Morphology, evolution, and stratigraphic position of representative fossil plant groups. Field trips. 3 lec, 6 lab. *Rothwell; Sp; D*.

575 Plant Speciation (5)

Theories and principles of evolution and speciation in plants, emphasizing microevolution, breeding systems, cytology, species concepts, and species complexes. 3 lec, 4 lab. Ballard; W; A.

SB0 Molecular Approaches in Plant Systematics, Ecology, and Evolution (5)

Overview of comparative molecular approaches used to infer relationships in plants at level of populations, species and lineages. 3 lec, 4 lab. *Ballard; W; A.* 

670 Botanical Pedagogy (1)

Preparation for botanical teaching in colleges and universities. F, W, Sp, Su; Y.

691 Seminar (2)

Graduate students present seminars on topics of current botanical interest. F, W, Sp, Su; Y.

693 Topics in Botany (2-6)

Advanced discussion courses offered when there is sufficient student interest in a significant current topic. Previous topics have included histochemical methods, current problems in biochemistry, plant anatomy, pteridology, and soil microbiology. D.

694 Graduate Research (1-15)

Original research in field of major interest under supervision of major advisor. Results and conclusions resulting from research may be presented in M.S. thesis or Ph.D. dissertation as partial fulfillment for respective degree. F. W. Sp., Su; Y.

#### 695 Thesis (1-15)

Formal presentation of results of research as partial fulfillment of requirements for M.S. Hours not counted toward degree. F, W, Sp, Su; Y.

**696 Topics in Organismal Botany (2–6)** Advanced discussion courses offered when there is sufficient student interest in a significant current topic. *D.* 

#### 697 Topics in Cell Biology (2-5)

Advanced discussion courses offered when there is sufficient student interest in a current topic. D.

#### 698 Topics in Ecology and Evolutionary Botany (1–6)

Advanced discussion courses offered when there is sufficient student interest in a significant current topic. *D.* 

#### **Environmental Studies**

#### http://www.ohio.edu/envstu/

Graduate work leading to the Master of Science in environmental studies is developed around an interdisciplinary program of coursework and research. The following five areas constitute available curricular concentrations:

**Life sciences**—courses selected primarily from biological sciences and plant biology

Physical and earth sciences—courses selected from chemistry, chemical engineering, civil engineering, geography, geology, industrial and systems engineering, and mechanical engineering

Environmental policy and planning—courses selected from business, civil engineering, economics, industrial and systems engineering, geography, and political science

**Environmental monitoring**—courses selected from biological sciences, chemical engineering, chemistry, civil engineering, plant biology, geology, and geography.

**Environmental archaeology**—courses selected from anthropology, biological sciences, plant biology, geography, geology, history, and political science.

Specific requirements for each concentration area are available upon request from the program director.

In addition to conventional programs of study developed around the five areas of concentration, you have the option of pursuing a combined master's degree program that allows you to combine the breadth of environmental studies with the focus of a departmental discipline.

See the Degree Requirements section, in which University regulations for combined master's degree programs are discussed.

#### Admission

Admission to the graduate program in environmental studies requires an undergraduate degree in agriculture, biology, botany, chemistry, ecology, economics, environmental studies, engineering, forestry, geography, geology, microbiology, zoology, or other cognates. If you lack a suitable background in one of these fields, you may be admitted to the program but required to take additional coursework. A transcript of undergraduate work and three letters of recommendation are required with your application for admission. Deadlines for admission are January 1 for fall quarter, October 1 for winter quarter, and February 1 for spring quarter. To be considered for financial aid, submit your application by January 1 of the academic year preceding admission.

The minimum undergraduate grade-point average (g.p.a.) necessary for unconditional admission is 3.0 (of 4.0). Some students with a g.p.a. between 2.8 and 3.0 are admitted on conditional status but must achieve a g.p.a. of 3.0 in their first 15 hours of graduate coursework.

#### Requirements

You are required to complete at least 45 credit hours of graduate coursework. Of these, at least 17 credits (three courses) are core courses, and at least 20 additional credits (four to six courses) are in your area of concentration. The balance of the 45 hours comes from other graduate courses, plus graduate research.

Students may select their remaining courses from one of the five curriculum concentrations: Life Sciences, Physical and Earth Sciences, Environmental Monitoring, Environmental Archaeology, or Environmental Policy and Planning.

The core course requirement is satisfied by successful completion of ES 659 Environmental Studies Seminar, and the following courses: GEOG 547 Resource Management, BUSL 570 Environmental Law, POLS S25 Environmental and Natural Resources Policy, plus one graduate ecology course: BIOS S77 Population Ecology, BIOS S78 Community Ecology, MICR S75 Microbial Ecology, GEOG S17 Landscape Ecology, ANTH S78 Human Ecology, PBIO 536 Plant Community Ecology, or PBIO S37 Ecosystem Ecology

The program takes two years to complete. Each student completes interdisciplinary graduate coursework and independent research as a thesis or as a non-thesis research report. The non-thesis research report includes written comprehensive examinations.

#### **Environmental Studies Courses (ES)**

658 Environmental Studies Colloquium (2) Prereq: ES major. Orientation course primarily for new students in the environmental studies program. Covers general topics in curriculum, research, and career planning. F. W. So.

659 Seminar in Environmental 5tudies (3)
Prereq: E5 major. Provides forum for discussion and analysis of contemporary environmental problems. Topics vary depending on interests of seminar students. This course is required fall quarter for all new students, and may be taken winter or spring quarters for additional credit

#### Foreign Languages and Literatures

http://www.ohio.edu/departments/foreign.html

Courses are offered in African and Asian Languages (Chinese, Indonesian/Malaysian, Japanese, Swahili, Southeast Asian Literature in Translation); Germanic, Romance, and Slavic Languages (Modern Languages Professional Courses, French, German, Italian, Russian, Spanish); Classical Languages (Greek, Latin). Master of Arts degree programs in French and Spanish are offered.

#### African and Asian Languages

#### Chinese Courses (CHIN)

**511** Elementary Chinese I (3–5)
Study of spoken and written Mandarin. *Tao; F; Y.* 

**512** Elementary Chinese II (3–5)
Prereq: S11 or equiv. Study of spoken and written Mandarin. *Tao; W; Y.* 

513 Elementary Chinese III (3–5)
Prereq: 512 or equiv. 5tudy of spoken and written Mandarin. *Tao; Sp; Y.* 

**521** Intermediate Chinese I (3–5)
Prereq: 513 or equiv. Intensive study of spoken and written Mandarin. *Tao; F; Y.* 

- 522 Intermediate Chinese II (3-5)
- Prereq. S21 or equiv Intensive study of spoken and written Mandarin. *Tao; W; Y.*
- 523 Intermediate Chinese III (3–5)
  Prereq: S22 or equiv Intensive study of spoken and written Mandarin. *Tao: Sp: Y.*
- **S31** Advanced Chinese I (3–5)
  Prereq: S23 or equiv. Intensive study of spoken
- and written Mandarin. *Tao; F; Y.*
- 532 Advanced Chinese II (3–5)
  Prereq: S31 or equiv. Intensive study of spoken and written Mandarin. *Tao; W; Y.*
- S33 Advanced Chinese III (3–5)
  Prereq: S32 or equiv. Intensive study of spoken and written Mandarin. *Tao; Sp; Y.*
- S99 Special Studies (1–3)

Prereq: perm. Reading and discussion of arranged assignments in books, periodicals, and tapes on specific topics related to Chinese language and culture. Tao; F. W. Sp., Su; Y.

# Indonesian/Malaysian Courses (INDO)

- 511 Elementary Indonesian/Malaysian I (3–5)
  Study of spoken and written Indonesian/
  Malaysian. McGinn; F; Y.
- 512 Elementary Indonesian/Malaysian II (3-5) Prereq: 511 or equiv. Study of spoken and written Indonesian/ Malaysian. McGinn; W; Y.
- 513 Elementary Indonesian/Malaysian III (3–5) Prereq: 512 or equiv. Study of spoken and written Indonesian/ Malaysian. *McGinn; Sp; Y.*
- **521** Intermediate Indonesian/Malaysian I (3–5) Prereq: 513 or equiv. Study of spoken and written Indonesian/ Malaysian. *McGinn; F; Y*.
- 522 Intermediate Indonesian/Malaysian II (3-5) Prereq: S21 or equiv. Study of spoken and written Indonesian/ Malaysian. *McGinn; W; Y.*
- **523** Intermediate Indonesian/Malaysian III (3–5) Prereq: S22 or equiv. Study of spoken and written Indonesian/ Malaysian. *McGinn; Sp; Y.*
- 531 Advanced Indonesian/Malaysian I (3–5) Prereq: 523 or equiv. Study of spoken and written Indonesian/ Malaysian. *McGinn*; F; Y.
- 532 Advanced Indonesian/Malaysian II (3–5) Prereq: 531 or equiv. Study of spoken and written Indonesian/ Malaysian. *McGinn; W; Y.*
- 533 Advanced Indonesian/Malaysian III (3–5) Prereq: S32 or equiv. Study of spoken and written Indonesian/ Malaysian. *McGinn; Sp; Y.*
- 599 Special Studies (1–3)
  Prereq: perm. Individual study of selected
  Southeast Asian topics. McGinn: F. W. Sp. Su: Y.

#### Japanese Culture Courses (JPC) 510 Field Study in Japan (2)

- Cultural orientation designed to prepare students for study abroad in Japan. Taught in English. Sp.
- 550 Japan: A Sociocultural Interpretation (5) Focused readings in English designed to broaden students' understanding of Japanese culture for personal, academic, or professional purposes. So.
- Japanese Courses (JPN)
- 511 Elementary Japanese I (3–5)
- Study of spoken and written Japanese. Oshita; F; Y. 512 Elementary Japanese II (3–5)
- 512 Elementary Japanese II (3–5)
  Prereq: S11 or equiv. Study of spoken and written Japanese. *Oshita; W; Y.*

- **S13** Elementary Japanese III (3–5) Prereq: S12 or equiv. Study of spoken and written Japanese. *Oshita; Sp; Y.*
- 521 Intermediate Japanese I (3–5)
  Prereq. 513 or equiv. Study of spoken and written Japanese. *Oshita; F: Y.*
- **522** Intermediate Japanese II (3–5)
  Prereq. 521 or equiv. Study of spoken and written Japanese. *Oshita; W; Y.*
- S23 Intermediate Japanese III (3–S) Prereq: 522 or equiv. Study of spoken and written Japanese. *Oshita; Sp; Y.*
- S31 Advanced Japanese I (3–5)
  Prereq: S23 or equiv. Study of spoken and written Japanese. *Oshita; F; Y.*
- **532** Advanced Japanese II (3–5)
  Prereq: 531 or equiv. Study of spoken and written Japanese. *Oshita; W; Y.*
- 533 Advanced Japanese III (3–5)
  Prereq: S32 or equiv. Study of spoken and written Japanese. *Oshita; Sp; Y.*
- 548 Readings in Japanese Culture I (4)
  Prereq: S23 or S31 or perm. Social, political, and cultural aspects of modern Japan through readings, discussions, class reports, and short papers. All work will be done in Japanese.

  Oshita; W; Y.
- 549 Readings in Japanese Culture II (4)
  Prereq: 548 or perm. Social, political, and
  cultural aspects of modern Japan through
  readings, discussions, class reports, and short
  papers. All work will be done in Japanese.
  Oshita; Sp; Y.
- 599 Special Studies (1-3)

Prereq: perm. Reading and discussion of arranged assignments in books, periodicals, and tapes on specific topics related to Japanese language and culture. Oshita; F, W, Sp, Su; Y.

#### Swahili Courses (SWAH)

- 511 Elementary Swahili I (3–5) Study of spoken and written Swahili. Staff; F; Y.
- 512 Elementary Swahili II (3–5)
  Prereq: 511 or equiv. Study of spoken and written Swahili. Staff; W; Y.
- 513 Elementary Swahili III (3–5) Prereq: 512 or equiv. Study of spoken and written Swahili. *Staff; Sp; Y.*
- **S21** Intermediate Swahili I (3–5) Prereq: S13 or equiv. Study of spoken and written Swahili. Staff; F; Y.
- **522** Intermediate **5wahili II (3-5)**Prereq: 521 or equiv. Study of spoken and written **5wahili**. *5taff; W; Y*.
- 523 Intermediate Swahili III (3–5)
  Prereq: S22 or equiv. Study of spoken and written Swahili. Staff: Sp: Y.
- 531 Advanced Swahili I (3–5)
  Prereq: S23 or equiv. Study of spoken and
- 532 Advanced Swahili II (3-5) Prereq: 531 or equiv. Study of spoken and written Swahili. Staff; W; Y.
- 533 Advanced Swahili III (3–5)
  Prereq: 532 or equiv. Study of spoken and written Swahili. Staff: So: Y.
- 599 Special Studies (1–3)

written Swahili. Staff; F; Y.

Prereq: perm. Reading and discussion of arranged assignments in books, periodicals, and tapes on specific topics related to Swahili language and East African culture. Staff; F.W., Sp., Su; Y.

# Southeast Asian Literature in English Courses (ILL)

**540** Traditional Literature of Southeast Asia (3) Survey of traditional literature of Southeast Asia in translation. *McGinn; W; Y,* 

**545** Modern Literature of Southeast Asia (3) Survey of modern literature of Southeast Asia in translation. *McGinn; Sp; Y.* 

# Germanic, Romance, and Slavic Languages

Master of Arts programs are offered in French and Spanish. Both thesis and nonthesis programs are available. Courses for a secondary area can be taken in any language offered by the Department of Modern Languages. You may apply for admission to a graduate degree program in modern languages in any quarter, but preference will be given to applications received in the fall quarter. Application materials must be received two quarters prior to the quarter for which you are seeking admission; to be considered for financial aid for the following academic year, you must submit application materials by Jan. 15 in Spanish and March 1 in French. Qualified teaching assistants may have an opportunity to teach in one of the department's programs abroad.

You also can earn a Master of Education with certification and a major in one modern foreign language, or a Ph.D. in education with 12 graduate courses in one modern foreign language. Consult the College of Education for further information.

To begin a graduate major in a modern foreign language, you should have completed an undergraduate major of 40 quarter hours beyond course 213 or the equivalent in that language. To begin a secondary area of modern languages, you should have completed a minimum of six hours of undergraduate work at the 300 level or the equivalent in the language. You can make up deficiencies in undergraduate preparation during the summer preceding graduate work or during the first quarter of study.

Twelve graduate courses in the major field are required for the M.A. in Spanish and in French. You must also demonstrate a reading knowledge of a second modern language or Latin, to be shown either by passing 113 in a modern foreign language, Latin 113, or an equivalent intermediate course with

at least a grade of B; passing the examination given for 513 (ETS Foreign Language Tests or a translation test prepared by the Modern Languages Department); or by passing a literature course in the foreign language. Graduate students in Spanish may alternatively pass the second language requirement by demonstrating that they have completed one entire year of undergraduate study in a language or by taking 511, 512, and 513. In lieu of a foreign language, you may present two graduate courses in linguistics in addition to the 12 graduate courses required for the M.A. in Spanish and in French. Teaching assistants are required to register for one hour of 699 each of the first three quarters they are on financial appointment. To complete the M.A. degree you must pass a written and an oral comprehensive examination based on coursework and a reading list.

For further information regarding admissions, program options, and degree requirements, write to the graduate chair, Department of Modern Languages, Ohio University, Gordy Hall, Athens OH 45701-2979.

#### Modern Languages Courses (ML)

510 Technology in Language Teaching (4) For graduate students in teaching English as a foreign language, modern foreign language graduate associates, graduate teaching associates in linguistics, graduate education students, and teachers in secondary schools and colleges.

#### 535 Teaching Foreign Languages in the Elementary School (4)

Readings and discussions of the cognitive development of children and second-language acquisition provide the basis for practical class work. Students design units and prepare learning activities to present in class. Lab experience includes 20 hours observation and participation on the elementary school level.

545 Teaching of Modern Foreign Languages (4) Problems confronting students on level of instruction (elementary school, secondary school, college) at which they teach or plan to teach.

590 Special Topics (1–15, max 15)

Special graduate-level projects in various areas of modern foreign language study (literature, civilization, language development, and language technology) for graduate students with insufficient foreign language proficiency to participate in MLD graduate-level courses offered in the target languages. This course is not intended as a substitute for the 511-512-513 sequences in French, German, Italian, Russian, and Spanish. (Credit does not count toward M.A. in French or Spanish.)

#### French Courses (FR)

#### 511 French for Graduate Reading Requirement (3–5)

Preparation for reading knowledge examination required by some departments. (Credit does not count toward graduate major.)

#### 512 French for Graduate Reading Requirement (3–5)

Continuation of 511. See 511 for description.

#### 513 French for Graduate Reading Requirement (3–5)

Continuation of 511 and 512. See 511 for description.

- 515 French Literature of the Renaissance (5) Major 16th-century poets, including DuBellay and Ronsard.
- 516 French Literature of the Renaissance (5) Major 16th-century prose writers, including Rabelais and Montaigne.
- 51B 17th-Century French Literature (5) Works by numerous authors, including at least some of the following: Descartes, Pascal, Mme de La Fayette, La Rouchefoucauld, La Bruyére, La Fontaine, and Boileau.
- 519 17th-Century French Literature (5) Major plays of Corneille, Racine, and Molière.
- 523 18th Century (5)

French literature and thought in Age of Enlightenment.

524 1Bth Century (5) Continuation of 523.

#### 525 Romanticism (5)

Romanticism in drama, poetry, and fiction of first half of 19th century.

526 Realism and Naturalism (5)
Major fictional works of 19th century.

#### 527 French Poetry in the Second Half of the 19th Century (5)

Poetry of Baudelaire, Verlaine, Rimbaud, Mallarmé, and others.

- 529 20th-Century French Literature (5) French prose fiction before WW II.
- 530 Video in Foreign Language Teaching (5)
  This course is to develop students' ability to
  evaluate foreign language video programs, to
  teach techniques for developing their own video
  programs (e.g., operating video production
  equipment and editors, developing scripts and
  Quicktime movies), and to teach methods for
  integrating television and video into the foreign
  language classroom.
- 531 20th-Century French Literature (5) French prose fiction since WW II
- 533 20th-Century French Literature (5) French drama of the 20th century.
- 537 Applied Phonetics (5)

Systematic study of segmental and prosodic elements of French pronunciation including extensive oral practice.

539 Modern French Usage (5)

Fine points of grammar. Practice in writing and reading.

541 Stylistics and Criticism (5)

Explication de texte. Introduction to literary criticism.

554 Francophone Literature of Sub-Saharan Africa, Maghreb, and the Caribbean (5)

Representative works by 20th century Francophone Sub-Saharan, Maghreb, and Caribbean writers, including at least, but not limited to, Malika Makeddem, Léopold Senghor, Ferdinand Oyono, Maryse Condé, and Simone Schwartz-Bart. Works are studied in their historical and cultural contexts. Readings, lectures, films, and discussions.

- **559 French Civilization and Culture (5)** Social, political, and cultural development of France from its origins to French Revolution.
- 560 French Civilization and Culture (5)
  Social, political, and cultural development of
  France from French Revolution to present.

#### 561 Graduate Study in France (1–15) (as recommended by dept)

Research project must be approved by graduate committee. Research paper must be presented to graduate committee by end of quarter following foreign study.

562 Graduate Study in France (1–15) (as recommended by dept)Continuation of 561. See 561 for description.

563 Graduate Study in France (1–15) (as recommended by dept) Continuation of 561 and 562. See 561 for description.

564 Francophone Literature of Quebec(5) Representative works by 20th century Francophone writers of Quebec, including at least, but not limited to, Anne Hébert, Roch Carrier, Michel Tremblay, and Marie-Claire Blais. Works are studied in their historical and cultural contexts. Readings, lectures, films, and discussions.

602 Seminar (5, max 10)
Advanced study of period, movement, genre, work, or author.

603 Seminar (5, max 10) See 602 for description.

695 Thesis (1–15) Prereq: perm.

696 Directed Readings in French Language, Literature, and Culture (1–15, max 30)

Supervised reading in selected areas for students preparing for comprehensive exams. Final grade is recorded when departmental comprehensive examination has been taken.

698 Independent Study in French (1–5, max 15) Supervised research projects.

# 699 Problems in Teaching College French (1, max 3)

Designed to provide guidance for teaching associates in first year of instructing college students in beginning language course. Methods of presentation and difficulties in grammar and syntax discussed. Skill of making valid and fair tests developed.

#### German Courses (GER)

511 German for Graduate Reading Requirement (3–5)

Preparation for reading knowledge examination required by some departments. (Credit does not count toward graduate major.)

512 German for Graduate Reading Requirement (3–5)

Continuation of 511. 5ee 511 for description.

513 German for Graduate Reading Requirement (3–5)

Continuation of 511 and 512. See 511 for

698 Independent 5tudy in German (1-4, max 4) Supervised reading on a specific topic.

#### Italian Courses (ITAL)

511 Italian for Graduate Reading Requirement (3–5)

Preparation for reading knowledge examination required by some departments. (Credit does not count toward degree.)

512 Italian for Graduate Reading Requirement (3–5)

Continuation of 511. See 511 for description.

513 Italian for Graduate Reading Requirement (3–5)

Continuation of 511 and 512. See 511 for description.

#### Russian Courses (RUS)

511 Russian for Graduate Reading Requirement (3–5)

Preparation for reading knowledge examination required by some departments. (Credit does not count toward degree.)

512 Russian for Graduate Reading Requirement (3–5)

Continuation of S11. See S11 for description.

513 Russian for Graduate Reading Requirement (3–5)

Continuation of 511 and 512. See 511 for description.

698 Independent Study in Russian (1–4, max 4) For students who have established superior records and who have exceptional or native fluency in Russian.

#### Spanish Courses (SPAN)

511 Spanish for Graduate Reading Requirement (3–5)

Preparation for reading knowledge examination required by some departments. (Credit does not count toward graduate major.)

512 Spanish for Graduate Reading Requirement (3–5)

Continuation of 511. See 511 for description.

513 Spanish for Graduate Reading Requirement (3–5)

Continuation of 511 and 512. See 511 for description.

521 Medieval Spanish Literature (5)
Phonology, morphology, and syntax of Old
Spanish. Reading from Cantar de Mio Cid,
Gonzala de Berceo, Juan Ruiz, and other works.
Knowledge of Latin recommended.

522 Medieval Spanish Literature (5) Continuation of 521. See 521 for description.

525 19th Century Spanish Literature 1800–1850 (5)

Romanticism, costumbrismo, and other movements in drama, essay, and poetry.

527 19th Century Spanish Literature 1850–1900 (5)

Evolution of the novel in 19th-century Spain, including novels selected from the work of the following: Valera, Pereda, Galdos, Alas, Pardo Bazan, Blasco Ibanez.

529 Generation of '98 (5)

Representative works by early 20th-century Spanish writers, including at least some of the following: Azorin, Baroja, Valle-Inclan, Unamuno, A. Machado, Perez de Ayala, Ortega y Gasset, and Juan Ramon Jimenez.

532 20th Century Spanish Literature (5) Study of Spanish literature of various genres since 1925. The course may highlight the poetic generation of 1927, contemporary poetry or theatre, or the novel of the democratic period. 537 Applied Phonetics (5)

Systematic description of the sound system of Spanish.

538 Hispanic Dialectology and Sociolinguistics (5)

Overview of major dialects of the Hispanic world and exploration of the sources of dialectal variation, e.g. age-based, gender-related, and socio-cultural, among others. Readings, lectures, class presentations, and discussions.

539 Modern Spanish Usage (5)
The grammatical structure of modern Spanish.

540 Teaching Spanish: Theory and Methodology (5)

This course provides an introduction to the philosophy and theoretical orientation of the teaching of Spanish language and cultures; an introduction to issues in second language acquisition research, with a focus on Spanish; and opportunities to develop professional and instructional materials.

541 Stylistics (5)

Analysis of literary styles and study of techniques used to acquire correct style in writing Spanish.

543 Spanish American Literature (5)
Main movements of Spanish American literature
from colonial period through Modernismo.

544 Spanish American Literature (5)
Main movements of Spanish American literature
from Posmodernismo to the contemporary period.

547 Themes from Spanish American Prose (5)
Main movements of Spanish American literature
from Modernismo to contemporary period.

548 Contemporary Spanish American Literature (5)

553 Drama of the Golden Age (5)
Works by Lope de Vega, Calderon de la Barca,
Tirso de Molina, Juan Ruiz de Alarcón, and
related dramatists.

554 Golden Age Poetry (5)

Works by Garcilaso de la Vega, San Juan de la Cruz, Luis de León, Lope de Vega, Luis de Góngora, Francisco de Quevedo, and related poets.

555 Novel of the Golden Age (5)

Picaresque novel, Cervantes' Novelas Ejemplares, and other examples of the novel from this period.

557 History of the Spanish Language (5) Evolution of Spanish language from pre-Romance Iberian languages to present. Consideration of contemporary dialects.

558 Don Quijote de la Mancha (5) Intensive study of Part One and Part Two of Spain's greatest novel.

559 Spanish Civilization and Culture (5)
Comprehensive survey of Spanish civilization and culture including setting, historical background, regionalism, intellectual currents, and movements in arts which lead into and form modern Spain.

560 Spanish American Civilization and Culture (5)

Reading and interpretation of Spanish American philosophical, political, historical, social, and artistic thought as expressed in essay. Occasional visits of lecturers from other disciplines will provide different perspectives on same subject and thus cross-fertilization of ideas.

661 Graduate Study in Spain or Latin America (1–15) (as recommended by dept)

Research project must be approved by graduate committee. Research paper must be presented to graduate committee by end of qtr following foreign study.

562 Graduate Study in Spain or Latin America (1–15) (as recommended by dept)Continuation of 561. See 561 for description.

563 Graduate Study in Spain or Latin America (1–15) (as recommended by dept) Continuation of 561 and 562, See 561 for

602 Seminar (5, max 10)

description.

Advanced study of period, genre, work, author, or phenomenon in one of the following areas: (a) literature of the Middle Ages, (b) Renaissance, (c) modern Spanish literature, (d) Latin American literature, (e) Spanish language. May be repeated when topic changes.

603 Seminar (5, max 10)
Continuation of 602. See 602 for description.

695 Thesis (1–15)

696 Directed Readings in Spanish Language,
Literature, and Culture (1–15, max 30)
Supervised reading in selected areas for student

Supervised reading in selected areas for students preparing for comprehensive exams. Final grade is recorded when departmental comprehensive examination has been taken.

698 Independent Study in Spanish (1–5, max 15) Supervised research projects.

699 Problems in Teaching College Spanish (1, max 3)

Provides guidance for teaching associates in first year of instructing college students in beginning language course. Methods of presentation and difficulties in grammar and syntax discussed. Skill of making valid and fair tests developed.

#### **Greek and Latin Languages**

**Greek Courses (GK)** 

501 Beginning Greek (3-5)

Grammar, vocabulary, and reading of ancient Greek. Introduction to Ionic, Attic, and Koine (New Testament) dialects.

502 Beginning Greek (3–5)
Prereq: 501 or equiv. Continuation of 501. See
501 for description.

503 Beginning Greek (3–5) Prereq: 502 or equiv. Continuation of 501-502. See 501 for description.

504 Greek Prose and Poetry (3–5)
Prereq: 1st yr Greek. Review of language principles. Readings adapted to needs and interests.

505 Greek Prose and Poetry (3–5)
Prereq: 504. Continuation of 504. See 504 for description.

506 Greek Prose and Poetry (3–5) Prereq: 505. Continuation of 504-505. See 504 for description.

511 Greek Epic Poets (3–5)
Presea: 506 or equiv Readings in Greek fro

Prereq: 506 or equiv. Readings in Greek from Homer and Hesiod.

512 Greek Tragedy (3–5)
Prereq: 506 or equiv. Readings in Greek from Aeschylus, Sophocles, and/or Euripides.

513 Readings in Greek Intellectual History (3–5)
Prereq: 506 or equiv. Readings in Greek from
Plato, Thucydides, and/or the Sophists.

514 Greek Historians (3–5) Prereq: 506 or equiv. Readings in Greek from Herodotus and Thucydides.

515 Greek Comedy (3-5)

Prereq: 506 or equiv. Readings in Greek from Aristophanes.

# 516 The Greek New Testament and the Milieu of Early Christianity (3–5)

Prereq: 506 or equiv. Readings in Greek from the New Testament, the early Greek fathers, and/or non-Christian writers of interest for the study of early Christianity.

551X Demotic Greek (3-5) 8eginning demotic (modern) Greek.

seginning demotic (modern) dri

552X Demotic Greek (3-5)
Prereq: 551X. Continuation of demotic (modern)
Greek.

#### 553X Demotic Greek (3-5)

Prereq: 552X. Continuation of demotic (modern) Greek.

598 Independent Study in Greek (1–5, max 10) Supervised reading in Greek on a specific topic.

#### Latin Courses (LAT)

501 Latin for Graduate Reading Requirement (3–5)

Preparation for reading knowledge examination required by some departments. (Credit does not count toward degree.)

502 Latin for Graduate Reading Requirement (3–5)

Continuation of 501. 5ee 501 for description.

503 Latin for Graduate Reading Requirement (3–5)

Continuation of 501 and 502. See 501 for description.

511 Studies in Latin Literature of the Republic (3–5)

Extensive reading or study of special topics in period.

512 Studies in Latin Literature of the Republic (3–5)

Continuation of 511. 5ee 511 for description.

513 Studies in Latin Literature of the Republic (3–5)

Continuation of 511 and 512. See 511 for description.

515 Studies in Latin Literature of the Early Empire (3–5)

Extensive reading or study of special topics in period.

516 Studies in Latin Literature of the Early Empire (3–5)

Continuation of 515. See 515 for description.

517 Studies in Latin Literature of the Early Empire (3–5)

Continuation of 515 and 516. See 515 for description.

519 Graduate Reading in Latin Literature (3–5) Reading and essays to complement undergraduate work in Latin.

520 Graduate Reading in Latin Literature (3–5) Continuation of 519. See 519 for description.

**521 Graduate Reading in Latin Literature (3–5)** Continuation of 519 and 520. See 519 for description.

533 Special Work in Latin Syntax (3–5)
Development of style in writing Latin prose.

540 Special Problems in Latin (2–6, max 12) Investigation of selected phases of classical study.

#### French

See Foreign Languages and Literatures.

#### Geography

http://www-as.phy.ohiou.edu/ Departments/Geography/

The Master's Degree program in Geography prepares students for professional positions in government and industry, or for doctoral study. The departmental focus is primarily environmental geography, with faculty strengths in physical (biogeography, geomorphology, meteorology), resource management/land use planning, historical, urban, economic/ globalization, agriculture/cultural ecology, and geographic techniques (cartography, remote sensing, GIS). The Department houses several facilities to support research, including the Cartographic Center, Ohioview/Remote Sensing Laboratory, Scalia Laboratory for Atmospheric Analysis, and the Carl Ross Geomorphological Laboratory.

Prospective students are required to submit transcripts of all undergraduate work, scores on the GRE examination (verbal, quantitative, analytical), a statement of purpose, and three letters of recommendation. International students whose native language is not English must also submit the Test of English as a Foreign Language (TOEFL) scores. Application deadlines for admission to the graduate program are six weeks before the beginning of the quarter for which you are requesting admission, although the Department strongly encourages students to begin their graduate program in the fall quarter. To be considered for financial support for the academic year beginning in September, submit all application materials before March 1; international applicants should submit all materials by February 1. Graduate assistantships are awarded on a competitive basis; the minimum undergraduate grade point average for financial aid and unconditional admittance to the program is 3.0 on a 4.0 scale.

The Department of Geography offers both thesis and non-thesis M.A. degree programs. For both tracks, students must complete a minimum of 60 quarter hours of graduate study, 50 of which must be in Geography (a typical course load is 15 credits per quarter). All students are required to take Research and Writing (GEOG 675) and

Quantitative Methods (GEOG 571) during their first year; during their program, students must also complete two graduate seminars. Hours in GEOG 504, 505, 585, and 690 do not count toward the 60-credit total.

For students following the thesis track, a minimum of nine additional electives are required, seven of which must be in Geography; fifteen hours of Thesis (GEOG 69S) are also required. Students should make every effort to select a thesis advisor early in their program, and defend a proposal before their thesis committee no later than the fall quarter of their second year; this time frame will allow you to complete your degree requirements and defend your thesis by the end of your second year.

Students electing the non-thesis option must develop a program covering three areas within Geography, including both systematic and technique specializations. Students should make every effort to have their specific program of study approved by their advisor and committee by the end of the first year. A set of written comprehensive exams over the three selected areas completes the degree.

#### **Geography Courses (GEOG)**

502 Meteorology (5)

General survey of meteorology with focus on physical principles explaining weather change. Lab.

503 Climatology (5)

Exchanges of energy and moisture and their significance in the human use of the earth's surface. Lab.

504 Observations in Meteorology (2) Prereq: 502. Lab experience in acquisition, measurement, and interpretation of meteorological parameters.

505 Practicum in Meteorological Forecasting (2-10)

Prereq: 502, 504. Lab experience in preparation and dissemination of meteorological forecasts.

506 Introduction to Synoptic Meterology (5) Introduction to synoptic meteorological analysis with interpretation of surface, upper air, and prognosis charts.

507 Advanced Synoptic Meteorology (5)
The construction and analysis of meteorological models used in predicting meteorological phenomena. Lab.

**511** Advanced Physical Geography (5)
Application of physical geographic principles to specific research theme.

515 Landforms and Landscape (5)
A topical approach to the study of landforms and landforming processes as fundamental elements of the physical environment. Includes landforms created by tectonism, volcanism, gravity, streams, glaciers, waves, and the wind. Lab.

#### 516 Biogeography (5)

An examination of the historical, environmental, and biotic influences that shape spatial patterns of plant and animal distributions and community structure in the contemporary landscape. (Crosslisted with BIOS)

#### 517 Landscape Ecology (5)

Explores landscape mosaics, focusing on landscape elements and the implication of spatial pattern for populations, communities, and ecosystems. Examines the role of humans in influencing landscape pattern and change.

#### Research Methods in Plant Biogeography (5)

Integrated, problem-oriented introduction to modern biogeographical research techniques. Emphasis on a range of problems biogeographers address, relevant literature, and traditional and contemporary approaches to particular issues. Students will learn by experience how biogeographers gather and weigh evidence about natural and human processes, employ maps and databases to represent and model real-life situation, analyze spatial, temporal, and functional relationships, and communicate findings.

#### 520 American Ethnic Geography (5)

Systematic and thematic survey of spatial and cultural patterns associated with ethnicity and ethnic groups in the United States. Emphasis on historical and spatial patterns of immigration, the experience of ethnic groups in American plural society, and ethnic contributions to American life.

#### 521 Population Geography (5)

Systematic survey of global population concerns including historic and contemporary patterns of population growth, distribution, fertility, and impact of these on the environment and economic resources. Population policies and trends in international migration examined, as well as gender/equity critiques of population as a development problem.

#### 522 Settlement Geography (5)

Survey of American rural settlement and its European antecedents. Emphasis on evolution and regional variation in property, field, fence, and road patterns on farmsteads and in small towns.

#### 525 Political Geography (5)

Systematic examination of basic approaches, historical development, special problems, and spatial concepts in political geography. Case studies emphasize the nation-state.

#### 526 Urban Geography (5)

Geographic analysis of cities and urbanization. Examines spatial patterns of cities and factors that lead to growth, decline, and change in urban areas. Introduces models of land use, transportation, population distribution, ethnic patterns, segregation, employment, urban economics, and housing. Studies impact of public policy changes and shifting social attitudes on spatial structure of cities, urban life, and city management.

#### 529 World Economic Geography (5)

Survey of the capitalist world economy, the rise of core economies, (under)development in the periphery and global economic restructuring.

#### 530 Geography of Western Europe (5)

Topical survey of Europe with emphasis on the geographical and cultural historical factors that influenced landscape and regional patterns in the past and today.

#### 531 Geography of Africa (5)

Systematic examination of four selected themes relevant to modern geography of Africa. Emphasis on development.

533 Appalachia: Land and People (5) Topical and regional survey of Appalachia with emphasis on settlement and expansion,

landownership and speculation, society and culture, and the impacts of natural resource extraction.

#### Historical Geography of the United States (5)

Systematic and regional survey of past human geographies of the United States from 1450 to the present. Focus on the development of regional identity over time and space, and manifestations of regional identities on the cultural landscape.

#### 535 Geography of Latin America (5)

Regional survey of Latin America focusing on biophysical systems, rural development, population/migration, cultural geography, and economic development

#### The Geography of Religious Space and Place (5)

Systematic and regional survey of religious cultural landscapes of the world in comparative perspective. Emphasis on religion as a cornerstone of culture and its manifestations in the cultural landscape. Focus on sacred space and place, pilgrimage and holy sites in selected religious belief systems.

#### The Geography of Religion in the United States (5)

Regional and systematic survey of religious belief systems in the United States. Emphasis on the analysis of the development of regional religious patterns over time and space and the role played by religion in American life. Focus on selected regional and local manifestations of religious belief in the American cultural landscape.

#### 538 Geography of Southeast Asia (5) Survey of physical geography, natural resources, population, food production, urbanism, and energy within selected regions.

#### Geographic Patterns in Developing Countries (5)

Comparative examination of selected spatial patterns of countries from the developing world.

#### Environmental Impact Analysis (5)

Introduction to analytic techniques, legal responsibilities, and administrative procedures in evaluating environmental impacts of land use change. Practice in production of environmental impact statements and in documenting scientific research.

#### 544 Agricultural Ecosystems (5)

Systematic analysis of agricultural change and sustainability of agricultural systems in the industrial and developing world. A spatial perspective on the globalization of agriculture, agrobiotechnology, and the future of agriculture.

#### 547 Natural Resource Conservation (5)

Themes in American environmental history, resource conservation and management, and contemporary environmentalism.

#### 550 Land Use Planning (5)

Survey of land use issues including mapping, ownership, legal issues, zoning, conservation, subdivision regulation, takings, and habitat conservation planning with practical applications.

#### 553 Environmental Planning (5)

Introduction to the development, implementation, and operation of activities to guide landscape development. Emphasis on interaction between natural and social systems, methods of environmental analysis, and the evolution of environmental planning strategies.

#### 555 Evolution of Planning (5)

Evolution of urban planning in U.S. during 19th

and 20th centuries. Housing, parks, ideal communities, intellectual attitudes, zoning and subdivision case law, federal intervention, present programs.

#### 556 City and the Environment (5)

Examination of historical and present-day environmental impacts of urban and suburban expansion in a North American context.

#### 558 Environmental Risk Assessment (5)

Systematic introduction to the concepts. problems, and methods that guide the identification and assessment of environmental risk with emphasis on natural hazards and their geophysical dimensions.

#### 560 Cartography (5)

Introduction to basic design and basic principles of aesthetically pleasing maps. Map construction ranges from simple map compilation to multicolor composition and scale reduction. Lab.

#### 561 Statistical Cartography (5)

Prereq: 560. Cartographic techniques of representing quantitative data on maps. Lab.

#### 565 Air Photo Interpretation (5)

Principles, techniques, and practice used in air photo interpretation for geographers, geologists, community planners, resource managers, and engineers. Lab.

#### 566 Remote Sensing (5)

Application of computer-based statistical pattern recognition techniques to the digital analysis and classification of remotely-sensed imagery. Lab.

#### 568 Automated Cartography (5)

Prezeg: 560. Introduction to automated techniques for compiling and producing maps. Issues range from reapplication of manual techniques in a computer environment to fully automated production and GI5.

#### Geographic Information Systems 570 Applications (5)

Applications of geographic information systems (GIS) to solving spatial problems. Instruction is a problem-oriented approach using desktop GIS. Students will learn how to use vector and gridbased GI5 to answer problems with a geospatial component. Course emphasizes methods for importing and integrating date sources and digital boundary files from the Internet and other sources. The purpose is to give students critical thinking skills to solve spatial problems using automated methods.

#### 571 Quantitative Methods (5)

Prereg: Permission. Systematic survey of the methods of multivariate analysis used by geographers.

#### 575 Geocomputing (5)

Introduction to methods of systems analysis and modeling directed to study of regional human and environmental processes and their interaction at regional and global scales.

#### 576 Field Methods (5)

Introduction to geographic field methods and techniques. Field mapping, data collection, spatial sampling, data analysis, synthesis, and reporting.

#### 578 Principles of GI5 (5)

Systematic introduction to the procedures and techniques that guide the design, implementation, and application of geographic information systems.

#### 579 Geographic Information Analysis (5) Prereg: 578. In-depth examination of the

methods of spatial data analysis and the utilization of GIS.

#### 585 Internship (max 15)

Prereq: perm. Provides qualifying students credit for work study experience in cartography, remote sensing, land-use planning, resource management, and other fields in applied geography. Supervised by geography faculty and evaluated by on-the-job supervisor. Lengthy report summarizes experience.

593 Colloquium (1)

666 Seminar in Cartography (5)

#### 675 Research and Writing (5)

Emphasis on geographic research and writing. Consideration of geography as science and scientific method. Study of techniques and style, followed by completion of writing tasks including literature reviews, criticism, and research proposal.

678 Analysis of Geographical Data (5) Prereq: 571. Students build geographical data files, analyze with descriptive and inferential statistics, and use models of spatial analysis directed toward the analysis of spatial patterns.

679 Seminar: Human Geography (5)

680A Seminar in Development: Environment and Development (5)

680B Seminar in Development: Theories of Development (5)

680C Seminar in Development: Gender and Development (5)

681A Seminar in Physical Geography: Biogeography (5)

6818 Seminar in Physical Geography: Geomorphology (5)

681C Seminar in Physical Geography: Meteorology and Climatology (5)

682 Seminar in Economic Geography (5)

6828 Seminar in Political Geography (5)

683 Metropolitan Areas: 5eminar in Urban Geography (5)

684A 5eminar in Regional Geography: Latin America (5)

6848 Seminar in Regional Geography: Southeast Asia (5)

684C Seminar in Regional Geography: Africa (5)

685 Seminar in Population Geography (5)

686 Seminar in Historical Geography (5)

687 Seminar in Geographical Technique (5)

688 Seminar in Resource Management (5) Prereg: 547.

689 Seminar in Land Use Planning (5)

690 Geographic Studies (1–5, max 5)

694 Research Project (1-15)

695 Thesis (1-15)

## **Geological Sciences**

http://www.ohio.edu/geology/

The Department of Geological Sciences welcomes qualified applicants who possess an undergraduate degree in geology or in an allied science field such as chemistry, physics, mathematics, biological science, or engineering. The department offers five M.S. options:

**Geology**—specializations in sedimentology, stratigraphy, structural geology, tectonics, geomorphology, stream processes, and paleontology.

#### Hydrogeology

#### **Environmental** geology

#### Environmental geochemistry

#### Geophysics

The Graduate Record Examination (GRE) is not required, but the general test is recommended. Have the results reported to the Department of Geological Sciences.

All options require a minimum of eight graduate courses approved by the department and completion of a thesis. Specific course requirements depend on the option selected. For additional details on requirements, see the publication *Graduate Program Information Package—Geological Sciences*, available from the department.

Prospective graduate students for all options should have demonstrated background in chemistry, physics, and calculus. Minimal background for admission to the geology option without deficiency includes courses in mineralogy, petrography/petrology, structural geology, sedimentology/ stratigraphy, geomorphology, paleontology, and field geology. Since the graduate options in hydrogeology, environmental geology, environmental geochemistry, and geophysics are designed for candidates with either undergraduate geology degrees or undergraduate degrees in allied sciences, the required background is flexible, and you may take certain undergraduate geology courses for graduate credit on the assumption of a more detailed background in a related science.

Applications for financial aid must be received by February 1 for priority consideration for fall quarter admission. You may be admitted in any academic quarter, but financial aid is often unavailable for students who do not enter in fall quarter.

#### **Geological Sciences Courses (GEOL)**

# 505 Modeling and Computational Methods in Geology (6)

Prereq: 330 and 360. Applied computer-based mathematical methods in geology. Basic geostatistical concepts. Data analysis, conceptual models, and hypothesis testing in geological problems. Mathematical simulation of geological processes and analysis of solutions. Use of software to model processes in hydrogeology, geochemistry, and other fields of geology. 4 lec, 2 lab. Löpez.

#### 510 Rocks and Minerals (6)

Principles of crystallography and crystal chemistry, descriptive mineralogy, origin and classification of igneous sedimentary and metamorphic rocks. 4 lec, 4 lab. D.

512 Earth Materials and Resources (5) Prereq: 101, CHEM 122 or 152. An introduction to minerals and rocks, emphasizing common varieties and those important as mineral resources. 3 lec, 4 lab. *Heien*.

#### 520 Petrography (6)

Petrogenesis of igneous, metamorphic, and sedimentary rocks and their identification via microscopic analysis of thin sections. 3 lec, 4 lab. *Kidder, Schneider, Sp. Y.* 

#### 527 Water Geochemistry (5)

Geochemical origin of major ions in natural waters and the role of fluid-mineral interactions in the evolution of sediments, the ocean, and the atmosphere. Introduction to thermodynamical equilibrium, kinetics, complexation, oxidation reduction, and cation exchange. Case studies of important geochemical and environmental issues. 3 lec, 2 lab. López.

#### 528 Physical Geochemistry (5)

Prereq: 527. Basic principles of physical chemistry of hydrogeologic, environmental, and geologic applications. Topics include adsorption and desorption reactions; chemistry of sulphur and iron; introduction to stable isotopes; transport mechanisms of chemical species; and origins, formation, and migration of oil. 3 lec, 2 lab. López.

530 Principles of Geomorphology (6)

Basic concepts of origin and development of land forms. Laboratory study of topographic maps and aerial photographs. Can be taken for graduate credit by students in hydrogeology and geophysics options only. 4 lec, 2 lab. *Springer; F; Y.* 

532 Origin and Classification of Soils (5)

Prereq: 330. Concept of soil and factors of soil formation, introduction to soil morphology and systems of soil classification, discussion of major soil groups of world and soils of Ohio. 3 lec, 2 lab, field work. *Springer; Sp; A.* 

533 Glacial Geology (5)

Formation and behavior of glaciers, past and present; glacial processes and causes, and implications of ice ages. 3 lec, 2 lab, field trips.

#### 535 Quaternary Geology (5)

Evaluation of the several geological records of Quaternary environmental change, including geomorphic land forms and sediments, ice cores, soils, organic sediments/fossils, cave deposits, tree rings, and others. Quaternary geochronology will be considered.

#### 538 Fluvial Geomorphology (4)

Introduction to stream processes and human interactions with rivers, including the qualitative and quantitative techniques used to study natural and distrubed streams as presented in lecture and field settings. 4 lec. Springer, Sp; A.

543 Advanced Invertebrate Paleontology (6) Prereq 340 Evolutionary frends, geologic history, selected index genera and faunas, and modern methods in study of invertebrate fossils. 3 lec, 4 lab. *Mapes, W;A* 

546 Earth Systems Evolution (5) Prereq 320, PHYS 201. Synthesis of the coupled histories of the earth's interior, surface, and life. 3 lec, 2 lab. *Worsley; W; Y.* 

548 Paleocology (5)

Methods of interpreting ancient environments using mineralogic, stratigraphic, and paleontologic data. Emphasis will be on determining the controlling parameters of ancient environments such as photic requirements, oxygen levels, substrate water salinity, etc. Mapes; D

550 Stratigraphy—Sedimentology (5)
Prereq 320. Introduction to principles and processes relating to origin of stratified rocks and conventions of their classification and description. Field methods and field trips with emphasis on depositional environments. 4 lec, 2 lab. Gierlowski-Kordesch: 5p: Y.

551 Diagenesis (5)

Critical view of diagenetic principles using numerous examples. Many topics are selected from recent journal articles. Readings, presentations, and discussions of current literature are included, as well as a term paper. 4 lec. Kidder.

552 Depositional Environments (5)

Advanced coverage of depositional processes and environments. Latter part of course focuses on global sedimentation and events. Readings, presentations, and discussions of current literature are included, as well as a term paper. 4 lec. *Kidder*.

553 Physical Limnology (5)

Physical parameters and processes in lake environments, including temperature, light, heat, oxygen, alkalinity, and dissolved ions. Labs include outdoor sampling and measurements. 3 lec, 2 lab. Gierlowski-Kordesch; F; A.

555 Limnogeology (5)

Prereq: 350 or 550 or equivalent. Geological aspects of ancient lake environments. Topics in lake models, geochemistry, sedimentology, and stratigraphy are selected from current literature for presentations and discussions. 4 lec. Gierlowski-Kordesch.

557 Petroleum Geology (5)

Petroleum geology is designed for geology students at the senior undergraduate and graduate level to provide an understanding of the basic concepts and processes that govern (1) the generation, migration, and trapping of hydrocarbon resources, and (2) the fundamentals of exploration for, and exploitation of, these resources. 3 lec, 2 lab. Nadon; A.

558 Fluvial Sedimentology (5)

Provides students with an understanding of how to interpret depositional environment of sedimentary rocks deposited by rivers and the large and small-scale forces that control the formation and preservation of these deposits. *Nadon; D.* 

560 Structural Geology (6)

Prereq: 320. Principles of rock deformation and interpretation of folding and faulting and related topics. Stress and strain; their application and derivation in natural structures. Field-oriented structural problems, structural maps, and use of stereographic projections. 3 lec, 2 lab, field work. Nance; F; Y.

564 Regional Tectonics (5)

Prereq 360. Global tectonics and structure of continental cratons and margins, mid-ocean ridges, island arcs, and major orogenic belts. 4 lec. *Schneider; W; A* 

#### 8asin Tectonics and Hydrocarbon Exploration (6)

An examination of the tectonics, structural style, and hydrocarbon potential of sedimentary basins, their role in the exploration of petroleum provinces, and their appearance and interpretation on conventional exploration data. Nance; D.

566 Geodynamics: The Earth's Interior (5) Prereq. 320. Structure of earth's interior and plate tectonics. Solid earth geophysics; gravity, magnetics, heat flow, velocity structure and seismicity. 4 lec. Green, Nance; 5p; Y.

567 Tectonophysics (5)

Quantitative modeling of solid earth physical processes. Physical properties of minerals, rocks, and unconsolidated materials. Modeling of tectonic plate flexure, geothermal heat flow, seismic wave propogation, and fault mechanics. 4 lec. Green; W; D.

571 Advanced Environmental Geology (5)
Covers the conceptual basis for understanding transport and reaction processes that govern change in many environmental systems.
Emphasizes processes occurring at the three major environmental interfaces: air and water, water and the adjoining earthen material, and air and soil. Includes chemical and thermal equilibrium, chemical transport, and transport and transfer of energy across the interfaces. 4 lec. López; W. A.

575A Field Camp I (4)

Introduction to field mapping techniques based on projects in the Appalachian region. This course, only in combination with GEOL 575B (Field Camp II), satisfies the field camp requirement. Schneider, Nadon, Nance; F; Y.

575B Field Camp II (5)

Prereq: 575A. Application of Field and mapping techniques learned in GEOL 575A, based on projects in the Death Valleyregion. This course, only in combination with GEOL 575A (FieldCamp I), satisfies the field camp requirement. Schneider, Nadon, Nance; winter intersession; Y.

576 Subsurface Methods (5)

Prereq<sup>-</sup> PHY5 202 or 253. Drilling practices, drill stem test, electric, sonic, and radioactivity logging applied to subsurface exploration. 3 lec, 2 lab. *Nadon; W; Y.* 

580 Principles of Hydrogeology (5)

Principles governing occurrence, movement, and recovery of water in soil and aquifers. Hydrogeologic cycle, water budget, hydrology of agriculture, watershed studies, water chemistry, and water pollution, water chemistry. 3 lec, 2 lab. Stoertz; F; Y.

581 Groundwater Flow Modeling (5) Prereq: S80. Steady and unsteady flow to well, analysis of pumping data, water well design, well development, interference of wells, and design of well fields. 3 lec, 2 lab. Stoertz, W; A.

582 Transport Processes in Groundwater (5) Prereq: 581. Basic principles and fundamental equations; D.E. of groundwater motion, solution of boundary value problems for different types of aquifers. Analytical and numerical methods in subsurface hydrology with emphasis on finite difference method, digital model. 4 lec. López; Sp; A.

583 Field Hydrology (6)

Prereq: water resources background. Field training in techniques of hydrology and water resources evaluation.

585 Introduction to Applied Geophysics (5) Prereq: PHYS 202 or 253. Introductory course in environmental and geotechnical geophysics. Survey of applied geophysical methods including seismic, gravity, magnetic, electrical, and electromagnetic techniques. 3 lec, 2 lab. *Green; F; Y.* 

586 Seismology (5)

Prereq: S85. Field methods and analysis techniques for seismic characterization of shallow subsurface, multichannel digital data acquisition, generalized reciprocal refraction, and common offset reflection techniques as practiced in environmental and geotechnical industries. Green; Sp; A.

589 Advanced Topics in Hydrogeology (1-4)
Prereq: 580. In-depth study of an advanced or current topic in hydrogeology, exploring (but not limited to) such areas as karst hydrogeology, fracture-flow hydrogeology, mine hydrology, unsaturated flow, and inverse modeling. Consult instructor for topics. Stoertz, López.

653 Sequence Stratigraphy (5)

analysis. 4 lec, 2 lab. Nance; D.

Principles governing the use of relative changes in sea level to interpret sedimentary sequences with an emphasis on field and core examples. 4 lec. *Nadon. A.* 

661 Advanced Structural Geology (5)
Prereq: 360. Deformation, stress, and strain: their application and derivation in natural structures.
Regional structural associations and geometric

690 Advanced Seminar in Geology (1–2, max 6) Intensive study of selected geologic topics by special groups. (Several seminars may be held concurrently.) F, W, Sp, Su; Y.

691 Geologic Studies (1–6, max 12) Individual or small-group independent study arranged with faculty members. F, W, Sp, Su; Y.

**692** Colloquium in Geology (1) Advanced seminar on current research in geology. *F, W, Sp; Y.* 

693 Research in Geology (1–3, max 6) Individual research projects arranged with faculty members. F, W, Sp, Su; Y.

**694** Teaching Methods in Geology **(1)** Practicum on pedagogical methods for geology teaching assistants. *F; Y.* 

695 Thesis (1-15)

Individual reseach toward a graduate thesis, supervised by a faculty member. F, W, Sp, Su; Y.

#### German

See Foreign Languages and Literatures.

#### History

http://www-as.phy.ohiou.edu/ Departments/History/

The graduate program in history is intended to prepare students for teaching and research at the college and university level, for secondary school teaching, and for a variety of other pursuits. Applicants are expected to have completed 24 semester hours or 36 quarter hours of undergraduate history courses. An exception to this requirement may be considered if

you have an outstanding undergraduate or M.A. record. Deadline for application to either the M.A. or the Ph.D. program for fall quarter admission is July 1; for financial assistance, the deadline is February 1.

#### Master's Program

The M.A. program offers work in the following fields: United States, modern Europe, ancient and medieval, Balkans and Middle East, Latin America, Africa, and southeast and east Asia. The general requirements in the thesis program consist of eight 500-level courses, a two-quarter seminar, and an acceptable thesis. The general requirements for the nonthesis program are ten 500- level courses, plus a twoquarter seminar in which an acceptable research paper is written. No foreign language is required for admission, but students in the thesis program must demonstrate a reading proficiency in one foreign language prior to graduation. The nonthesis M.A. program is usually regarded as terminal.

#### **Doctoral Program**

You must offer a minimum of six quarters of residence credit as a full-time equivalent student beyond the master's degree. You are required to show reading proficiency in two foreign languages; in particular cases, demonstrated proficiency in quantitative methods may be substituted for one language. You must complete a nonhistory minor of three graduate courses in one cognate field or four courses in two cognate fields. Within the area of concentration, you normally will select two fields, in one of which the dissertation will be written. You also will do coursework in two fields outside the area of concentration. Areas and fields are as follows:

**Area one.** American history: colonial, 19th century, 20th century, U.S. foreign relations, U.S. social-intellectual, U.S. Military, U.S. economic (in cooperation with the Department of Economics).

**Area two.** European: western Europe, European diplomatic, Tudor-Stuart England, England since 1815, Balkans, Russia, ancient, medieval Europe, and Renaissance and Reformation.

**Area three.** Third World: Africa, east Asia, southeast Asia, Middle East and Mediterranean, Latin America.

For additional details as to requirements, consult the publication *Ohio University: Graduate Study in History*, available from the department.

#### History Courses (HIST)

#### 500A Colonial America to 1689 (5)

English background, establishment of settlements, first economies, evolution of political and religious structures. Relations with England, internal conflicts. Glorious Revolution. Griffin; Y.

5008 Colonial America 1689–1763 (5)
Governmental changes, credit and currency,
Great Awakening, cultural developments, old
colonial system, Anglo-French rivalry, nature of
colonial society, problems of maturing political
units. Steiner: Y.

500C Revolutionary Era 1763–1789 (5)
Causes of American Revolution and struggle for independence. Confederation, movement for new government, framing of Constitution.
Steiner: Y.

500D Early American Republic 1789–1815 (5) Beginning with the ratification of the Constitution and concluding with the end of the War of 1812. Explores how Americans struggled to construct their political, social, and cultural institutions. Fidler: Y.

#### 502 American Indians (5)

Treats Indian society before white contact; Spanish, French, and English impact; Indian removal; Indian wars; problems of cultural contact; preservation versus assimilation; Indian society today. Y.

503 United States in World War II (5) Military and diplomatic role of United States in WWII; political, economic, and social impact of war on that nation. Y

505 The United States and the Vietnam War (5) Examines American experience in Vietnam, in terms of both military and diplomatic history of war itself and its impact on American society.

506 American Environmental History (5) A survey of the evolution—from 1565 to the present—of American attitudes toward, and interactions with, the natural world, including such topics as romanticism, the "code of the sportsman," conservation, the "land ethic," and "deep ecology." Reiger; D.

508A Pre-Civil War America, 1815–1850 (5) New definitions of democracy, westward expansion, early industrialization and class formation, moral reform movements, slavery and sectionalism, Mexican War, conflict of Jacksonian Democrats and Whigs. Field; Y.

508B The Civil War and Reconstruction (5) Forces making for increased sectionalism in 1850s, rise of new parties, military engagements, society and institutions in North and Confederacy during wartime, attempts to restructure Southern society after war and why they failed. Field; Y

#### 508C Foundations of Modern America: The Gilded Age, 1877–1901 (5)

Labor unrest, nativism and antisemitism, imperialism, government corruption, social Darwinism, urban growth, Victorian morality, and

Indian wars examined as outgrowths of efforts of American people to adapt to modernization and industrialization in late 19th century. *Field; Y* 

**509A** American Constitutional History (5) Traces the history of the American Constitution. Using the Constitution as a springboard, the course will examine the ideas, institutions, and individuals responsible for making the Constitution a battleground rife with intellectual, social, and cultural significance. *Fidler; Y.* 

510A Twentieth-Century America, 1900–1928 (S) Emphasis on political and cultural history. Major topics include early 20th-century progressivism as an intellectual movement and its manifestations in state and local politics; presidencies of Theodore Roosevelt and Woodrow Wilson; impact of WWI; ambivalent character of the 1920s in American culture and politics; origins and effects of the affluent society. Milazzo; Y.

510B Twentieth-Century America, 1928–1945 (5) Emphasis on politics, culture, and foreign policy. Major topics include origins and nature of Great Depression; Franklin D. Roosevelt and the emergence of the modern presidency; political and intellectual character of the New Deal; origins and impact of American involvement in WWII; wartime military history, diplomacy, and politics. *Milazzo*; Y.

#### 510C Twentieth-Century America, 1945–Present (5)

Emphasis on politics, culture, and foreign policy. Major topics include origins and nature of the Cold War; impact of foreign involvements on American politics; political leadership in the media age; radicalism and social change in the '60s and '70s; the rise of cultural politics and its effect on economic-based political coalitions; resurgence of conservatism in the '70s and '80s. Milazzo; Y.

514D American Social Thought to 1815 (5)
Major aspects of intellectual history of American colonies and United States to 1815, organized around two major themes: Puritanism and secularization of American thought in 18th century. Mattson; Y.

514E American Social Thought, 1815–1915 (5) Major aspects of intellectual history of U.S., 1815–1915, stressing rise of romantic nationalism triumph of democratic attitude; slavery controversy; impact of Civil War and Darwinian evolution. *Mattson; Y.* 

514F American Social Thought Since 1915 (5) Major aspects of intellectual history of U.S. since 1915, with principal attention to continuing impact of evolutionary naturalism, especially in development of pragmatism; trends in left and right political ideologies; rise of pessimistic theology and its ramifications; modernism in arts; new radicalism and counterculture. *Mattson; Y.* 

515A African American History to 1865 (5)
Beginning with introduction of slavery in 1619, course deals with black person's role in America through Civil War. Concerns slavery, abolition, and many attempts by black people to improve their position. Fletcher: Y.

#### 515C African Americans in American History, 1865-1939 (5)

Concerns Emancipation and its continuing effects on African Americans; life in the post-Civil War South; new Black leaders such as Washington, DuBois, and Garvey; and the migration to the North. Fletcher; Y.

# 515D African Americans in American History, 1940-Present (5)

Concerns World War II and its continuing effects on African Americans, migration to the North, the Civil Rights movement, and the problems of equality. Fletcher; Y.

#### 516A History of United States Foreign Relations to 1914 (5)

U.S. foreign relations from war for independence to WWI, stressing development of traditional policies—isolationism, neutrality, Monroe Doctrine—and emergence of U.S. as world power Pach; Y.

#### S16B History of United States Foreign Relations, 1914–1945 (5)

U.5 foreign relations beginning with World War I and ending with World War II, emphasizing the interwar years by comparing and contrasting such international issues facing the United States in the 1920s and 1930s with those which have resurfaced after the end of the Cold War as isolationism, nationalism, the nation-state, self-determination, ethnic and religious conflict, global economics, and peace movements. Hoff, Pach; Y.

#### 516C History of United 5tates Foreign Relations, 1945–Present (5)

U.S. foreign relations emphasizing the various interpretations of and methodologies for study of the origins of the Cold War, the emergence of detente, the reasons behind the end of the Cold War, and the current international issues facing the United States since 1991, especially globalization, terrorism, fundamentalism, and ethnic conflict. Hoff, Pach; Y.

#### 517A Ohio History to 1851 (5)

Moundbuilders and Indians, Anglo-French rivalry, Revolution, territorial development, patterns of settlement, Constitution of 1802, evolution of political parties, transportation and economy, banking and currency, Constitution of 1851. Steiner; Y.

#### 517B Ohio History Since 1851 (5)

Slavery and restructuring of political parties; Civil War, rise of industry, politics in progressive era, Great Depression and aftermath, post–WWII Ohio. Y.

#### 519 Sports in American History (5)

Survey of evolution of organized sports in U.S., focusing on major spectator sports. Emphasis on personalities and particular events rather than sociological and psychological theorizing.

Alexander; Y.

#### 520A Women in American History Before 1877 (5)

American women's history from the colonial era through Reconstruction. Topics include the traditional life of Native American women, witchcraft in colonial New England, women in the American Revolution, African American women in slavery, early American childbirth customs, the early women's rights crusade, women on the trans-Mississippi frontier, and women in the Civil War. Jellison; Y.

520B Women in American History Since 1877 (5) American women's history since Reconstruction. Topics include the experiences of immigrant women in the U.S., prostitution in the Gilded Age, the Progressive Era birth-control movement, achievement of the right to vote, women in the two world wars, women in the civil rights movement, the new feminist movement, the backlash against feminism, and Roe v. Wade and the abortion debate. *Jellison; Y.* 

# 520C Women's Health and Medicine in America (5)

This course examines, from the colonial era to the present, changes in the medical treatment of women and changes in the perception of what constitutes women's health and illness. The class will explore how the complex interplay of scientific inquiry, social mores, cultural fears and expectations, and the relationship between physicians and women have contributed to changing definitions of women's health and medicine.

## 521A History of the Military in America

Military institutions in American history: role of technology in warfare, innovations and reforms in military; war and its conduct; military and civilian society in war and peace. Fletcher, Y.

#### 521B History of the Military in America 1898-Present (5)

Continuation of S21A. Fletcher, Y.

# 522 1960s in the United States: Decade of Controversy (5)

Enables students to go beyond the popular stereotypes of the 1960s to understand the decade as a period of social, cultural, and political confrontation that laid the groundwork for life in the present-day United States. Students focus primarily on the following social protest movements of the era: the civil rights movement, the student movement, the antiwar movement, the counterculture, and the women's movement. Jellison: Y.

#### 523A Latin American History: The Colonial Era (5)

Examines historical origins of Latin American society. Themes include internal nature of Iberian and pre-Columbian Indian societies, ca. 1492; conquest and subordination of Amer-Indian civilizations by Spain and Portugal; distribution of power, land, and labor in post-conquest Latin America; order and instability in colonial society; and region's position in international economy. Grow: Y.

#### 523B Latin American History: The 19th Century (5)

Examines 19th-century origins of modern Latin American underdevelopment, focusing on causes and consequences of revolutions of independence; dynamics of dictatorship and democracy in post-independence Latin American political culture; and decision-making process by which Latin America's 19th-century leaders integrated their national economies into international economic systems as specialized exporters of raw materials. Grow; Y.

#### 523C Latin American History: The 20th Century (5)

Survey of modern Latin American history focusing on causes and consequences of structural instability in Latin America since 1900. Emphasis on collapse of region's traditional liberal/export model of national development in the 1930s; competing political/ideological responses to structural crisis in region (social revolution, authoritarianism, democratic change); and ongoing search for viable formulas of economic development. *Grow; Y.* 

#### 524 Colloquium in the History of U.5.-Latin American Relations (5)

Readings and research papers on major issues in 20th-century U.S.-Latin American relations. Grow; D.

#### 525 History of U.S.-Latin American Relations (5)

Survey of inter-American relations in the 19th and 20th centuries, focusing on evolving, and often conflicting, definitions of national interest that have shaped U.S. and Latin American policy orientations toward one another. *Grow;* Y.

# 526 Dictatorship in Latin American History (5) Focuses on predominant type of political/ governmental system in Latin America: authoritarian dictatorship. After placing Latin American authoritarianism in long-range historical context of autocratic, centralized rule within region, examines major examples of 20th-century ideological authoritarianism in Latin America ranging from populist authoritarianism of Juan Peron in Argentina to

bureaucratic authoritarian regimes recently in power in Southern Cone and Brazil. Attention to competing schools of interpretation which attempt to explain recurring phenomenon of nondemocratic forms of government in Latin America. *Grow: Y.* 

#### 528 The World of Aristophanes (5)

Political, social, and cultural institutions of Greece in fifth century 8.C. with special emphasis on city of Athens.D.

529A Ancient Egypt and Mesopotamia (5) Prehistoric eras; origin of Mediterranean civilizations; problems of ancient chronology; civilizations of Sumerians, Babylonians, Egyptians, Assyrians, Biblical Hebrews, and Persians. 5tresses archaeological and literary sources, comparative social and religious concepts, acculturation, contributions to Western civilization. Y.

#### 529B Ancient Greece (5)

Aegean prehistory. Minoan civilization, Mycenaean Greeks, Dorian invasions, Greek Renaissance, growth of the polis, Athenian society and culture, Persian and Peloponnesian wars, political history of Greece to Alexander. Stresses archaeological sources, mythology, and drama. Hellenic contributions to Western civilization. Y.

#### 529C Ancient Rome (5)

Early peoples of Italy, Etruscans, constitutional development of republic, growth of empire, civil wars, history of principate to Constantine. Stresses archaeological sources, Latin literature, Roman life and institutions, Roman contributions to Western civilization. Y.

#### 530A African History Through Film (5)

This course explores transformations in the nature of African societies, cultures and economies in the twentieth century, particularly in the post-1960 period. It will use film as a medium for studying issues as they are understood by Africans themselves. We will see African filmmakers as social historians, historians concerned with the everyday nature of the lives of common people.

532 History of Women in the Middle East (5) Main themes, divided chronologically and thematically, include the history of veiling, polygamy, divorce, and laws of personal status during the early periods of Islam; a reexamination of "harem politics" and the role of women in the Ottoman empire; the effects of Westernization and modernization in the 19th-century societies; and recent trends such as the enforcement of the veil in the Islamic Republic of Iran and Egyptian fundamentalist movements; section on women poets and novelists. *Quinn;* Y.

#### 533 Oil and World Power (5)

Resources, global communications, and grand strategy in historical perspective: focus on the oil industry in relation to warfare, politics, and the world economy with special attention to the Persian Gulf. Brobst; Y.

#### 534 The Arab-Israeli Dispute (5)

History of Arab-Israeli confrontation since 1890. Origins of Zionism and Arab Nationalism, impact of WWI and Peace Settlement, British Mandate for Palestine, political developments in Israel and Arab World since 1948, Great Power involvement in Middle East, and recent developments in conflict between Israel and Arabs. Quinn; Y.

535 Colloquium in Middle East History (5) Literature and source materials in Middle East since 1914; readings and reports. *Quinn; D.* 

535A Middle East History to 1800 (5) Islamic history and civilization from rise of Islam to end of 18th century. Role of prophet

Muhammad, doctrines and institutional system of Islam, medieval Islamic caliphates and their cultural achievements, and contributions of Persians and Turks to Islamic civilization. *Quinn; Y.* 

535B Middle East History Since 1800 (5)
History of Middle East since era of French
Revolution. Disintegration of Ottoman Empire;
emergence of contemporary Middle East political
system; impact of nationalism, secularism, and
industrialism on region; and position of Middle
East in contemporary world affairs. Quinn; Y.

538 History of West Africa (5)
History of West Africa from early times to
present; peopling of sudanic and forest regions;
development of trade; Islam and rise of sudanic
empires; slave trade and forest states; colonial
era; independence movements; problems of
nationalism.

538A History of East Africa (5) History of East Africa from early times to present, with particular emphasis on period since 1750.

541 Colloquium in African History (5) Literature and source materials on Africa; readings and reports. *Hawthorne; D.* 

541A Early Africa (5) Africa in ancient world, s

Africa in ancient world, spread of agriculture and iron working, rise of Islam, migrations of peoples, development of states, arrival of Europeans, beginnings of slave trade. Hawthorne; Y.

541B Africa During Slave Trade (5)
Africa in 17th century, slave trade, religious revolutions in western Sudan, development of African states, commercial revolution of 19th century, birth of plural society in South Africa, European partition of Africa. Hawthorne; Y.

541C Modern Africa 1890 to Present (5) Establishment of European rule in Africa, colonial period, rise of nationalism, decolonization and independence, problems of modern Africa. *Hawthorne*; Y.

542A South Africa to 1899 (5)

Establishment and transformation of African societies (8antu's migrations); coming of Europeans; evolution of Cape society (black, white, colored); conflicting nationalisms; Great Trek; rise of Zulu empire and mefcane; mineral revolution and subjection of African chiefdoms; British imperialism and coming of South African war. Hawthorne; Y.

542B South Africa Since 1899 (5)

South Africa (Boer) War and reconstruction; formation of Union; global war and racial/regional/class conflicts over land, labor, and politics; rise of Afrikaner nationalism and triumph of apartheid; rise and radicalization of African nationalism; collision of nationalisms and expansion of conflict in the 1970s; South Africa and the modern world. Hawthorne; Y.

543 Revolutions in Southern Africa (5) Historical background and developments to present of revolutions in Mozambique, Angola, Zimbabwe (Rhodesia), Namibia (South West Africa), and Azania (South Africa). Hawthorne; D.

544A History of the Malay World (5) Comparative view of southeast Asian archipelago, emphasizing Indonesian civilization after 1750. Penetration of West, struggle with imperialism and modernization, and present dilemmas. Indigenous views focus of attention. Frederick; D. 544B History of Burma and Thailand (5)
Comparative study of neighboring Buddhist states, emphasizing themes of change and continuity since mid-18th century. Special attention given to divergent responses to colonialism and Western style development and to similarities in political and social forms. Frederick: D.

544C History of Vietnam (5)

Modern Vietnamese civilization since 15th century, emphasizing political and social change after 1800. Special attention given to Vietnamese struggle with outside powers, including China, France, U.S., and Soviet Union. Frederick; D.

545A Southeast Asia to ca. 1750: The Creative Synthesis (5)

Highlights of pre- and proto-history and development of classical states. Emphasis on cultural synthesis (Hindu, Buddhist, Muslim, and animist influences) and theme of change and continuity in both Great and Little traditions of region. Frederick; Y.

545B Southeast Asia, ca. 1750 to 1942: Change and Conflict (5)

Indigenous change and widening effects of Western penetration, with emphasis on social and cultural developments. Nature of colonialism in region and response of colonized seen in light of both traditional and modern influences. Frederick; Y.

545C Southeast Asia, 1942 to the Present: The Rise of New States and Societies (5)

Japanese occupation and its relationship to great national revolutions of 1940s. Social and cultural contents of nationalism and revolt, search for new political forms, and struggle against disunity and poverty. Frederick; Y.

546C Ancient China (5)

Follows developments in early Chinese history. Jordan; Y.

**546D** Imperial China: **1200-1911 (5)** 5ee 546C. *Jordan; Y.* 

546E Modern China Since 1911 (5) See 546C. Jordan; Y.

548A Traditional Japan (5)

Development of Japan's early civilization, including indigenous elements and those derived from Korea and China. Political development of Japan leading to its position visa-vis Western nations in 19th century. Jordan; D.

548B Modern Japan (5)

Political weakness of Tokugawa system, leading to opening of Japan to Western trade and restoration of emperor; favorable economic and political base, which allowed Japan to enter successfully into competitions with European nations; Japan's ultranational era and postwar reconstruction. Jordan; D.

549 Colloquium in History of East Asia in Modern Times (5)

Historical literature relating the U.5. involvement in the process of modernization of China and Japan from 1860s to 1990s. Readings and reports. *Jordan; D.* 

550A History of Early Science (5)

Overview of the history of science from the ancient world to the 17th century. Examine areas of knowledge and technique most modern people consider to be a part of science, and some they do not, including medicine, astronomy, construction, mining, navigation, and warfare.

551 Medieval People (5)

In-depth inquiries into lives and epochs of representative individuals of Medieval Europe. Look at Middle Ages through biography. Y.

552 Medieval Civilization (5)

Transmission of Christianity and classical culture to barbarians and their work of combining the two into new civilization in early Middle Ages. Medieval civilization at its height: church, schools, scholastic thought, and secular culture. Y.

553A Early Middle Ages (5)

Foundation of Medieval synthesis, 300-1100; collapse of Roman world, establishment of successor states, spread of Christianity, formation and development of European culture.

553B Later Middle Ages (5)

History of the Mediterranean and Western Europe from roughly 1000 to 1400: papacy, lords & vassals, agricultural revolution, crusades, monarchy, bubonic plague, mystics and gunpowder.

554A Early Christianity (5)

Investigates historical development and spread of Christianity from its origins to about A.D. 600. Content includes Greek and Hebraic backgrounds, early church fathers of East and West, ecumenical councils, early heresies, and defvelopment of church doctrine.

554B Modern Christianity (5)

This course will explore the modern history of the world's largest and most geographically diverse religious tradition. While primarily considering modern Christianity's Euro-American "heartlands" this class will also examine Christianity's transition during the modern period from a religion centered on Europe, its colonies and settlements to a global religion that has helped define and resist modernity.

555 The Age of Michelangelo (5)

The life of Michelangelo (1475–1564) spans the two most significant movements in early modern European history: the Renaissance and the Reformation. All of his work, artistic and literary, reflects these movements. This course deals with philosophy, theology, architecture, art history, literature, and history. Bebb; Y.

556A Italian Renaissance (5)

Major political, social, economic, and cultural currents of Italian city-states from 1150 to 1550. Focus on Dante, Petrarch, Boccaccio, Bruni, Machiavelli, Guicciardini, Michelangelo, Leonardo da Vinci, etc. *Bebb; Y.* 

556B Northern Renaissance (5)

History of Renaissance outside Italy: politics, economics, sociology, and intellectual currents of Germany, France, Spain, Burgundy, and England from 1300 to 1600. Treated thematically, course focuses on Erasmus, More, Ximenes, Reuchlin, Hutten, Bude, etc. Bebb; Y.

556C Reformation (5)

Protestant, Catholic, and Counter-Reformations in Europe, showing their relationship to social, political, economic, and religious movements of 15th and 16th centuries. Roles of Luther, Zwingli, Calvin, Cranmer, Erasmus, Loyola, etc.; Protestant and Catholic churches and sects in western and eastern Europe. *Bebb; Y.* 

557 Florentine People (5)

Major figures in Florence from 1300 to 1600, from Dante to Galileo. Concerned with some originators of modern thought in areas of artistic theory, poetic form, Italian language, political ideas, scientific method, and historical composition. *Bebb; D.* 

558A Early Modern Europe, 1559–1648 (5) Main political, economic, and social developments during age of 5panish hegemony: Hapsburg power, wars of religion and ideological struggle, challenge of Bourbon France—Henry IV and Richelieu. Baxter; Y.

5588 Early Modern Europe, 1648–1715 (5)
Main political, economic, and social developments: rise of absolutism and France of Louis
XIV, French hegemony and its challenges, society
of hierarchy. Baxter; Y.

558C Early Modern Europe, 1715–1774 (5) Main political, economic, social, and intellectual developments: change from society of "estates" to that of class, New Husbandry, Industrial Revolution, rise of Prussia and Frederick the Great, balance of power, and Enlightenment and Enlightened Despots. Baxter; Y.

#### 559 Philosophies of History (5)

Study and discussion of different philosophies of history dating from ancient to modern period. Analysis of how thinkers have taken empirical data of history and shaped them into metaphysical form. Y.

# 560A Women in Early Modern European History (5)

The course explores the social, cultural, political, and economic roles of women in Europe from the fifteenth through the eighteenth centuries. Key issues will include women's political power and participation in politics; sexuality and the body; women's spiritual and religious roles; and women's interactions with men.

#### 5608 Women in Modern European History, 1800-present (5)

The course explores the role of women in western European society from the French Revolution to the present. Key themes will include how women have affected and been influenced by social, cultural, and political currents; the place of women in historical literature; and how women's roles have changed over time at the political as well as the everyday levels.

#### 560C Women Warriors (5)

This course analyzes the role of women in military capacities in Western Europe from a social-cultural perspective.

#### 561 The French Revolution (5)

The French Revolution traditionally has been seen as the dividing line in history, separating the Old Regime from modern times. This course will examine the origins, course of events, and the significance of the French revolutionary experience. Baxter; D.

#### 562A Europe 1814-1871 (5)

Europe from Congress of Vienna through Franco-Prussian War. Growth of liberalism and nationalism, revolutions of 1830 and 1848, industrial revolution, unification of Italy and Germany, social and intellectual movements. Y.

#### 562B Europe 1871-1914 (5)

Development of Austria-Hungary, France, Italy, Germany, Great Britain, and Russia including imperialism. Background of WWI and social and intellectual movements. Goda; Y.

#### 564A Europe Between World Wars (5)

Fascism, communism, world depression, and 20-Year Armistice between 1919 and 1939; social, economic, and intellectual approach. Goda; Y.

#### 564B Contemporary Europe (5)

Europe since 1945: postwar settlement, cold war, E.E.C.; survey of developments in Britain, France, Italy, Germany, and some smaller countries. Goda: Y.

# 566A Modern France in the 19th Century (5) Rise and fall of Napoleon I; his impact on France and Europe; monarchist interlude; revolution of 1848 and election of Louis Napoleon; Second Empire, liberal and authoritarian; wars and transformation of Europe; fall of Napoleon and Paris Commune; Third Republic, Y.

5668 Modern France in the 20th Century (5)
Dynamic and stagnant aspects; nostalgia and
rejection of 20th century; impact of 20th century;
democracy in France; European and colonial
wars; communist movement from Popular Front
to Common Program; anticommunism in France;
French in changing world; De Gaulle, his
predecessors, and his successors. Y.

56BA Modern Germany in the 19th Century (5) Cosmopolitanism and movement to create national German state; rise of capitalism and decline of handicraft; liberation of German peasantry; revolution of 1848 and reaction; blood and iron chancellor; Germany's rise to European predominance; rise of worker movement; German society at turn of century. Goda; Y.

568B Modern Germany in the 20th Century (5) Germany on eve of WWI: military fiasco and creation of Weimar Republic; Weimar, Berlin, Munich, and Dresden; attempt to forge democracy; Third Reich and transformation of German society; WWII and Final Solution; Communist Germany and Federal Germany; two societies and two states, 1945–1990. Goda; Y.

# 570 History of the Byzantine Empire 324–1453 (5)

Decay of Roman world and emergence of Christian Empire, 324–717; Medieval Roman Empire, 717–1056; weakening of Central Administration and apparent revival under Comneni, 1025–1204; Byzantium and neighboring world, 1204–1453; church and state; education and learning; Byzantine art; social, political, and military developments. Curp, Y.

#### 572A Balkans in Early Modern Period, 1453–1804 (5)

Ethnographic structure of Balkan peoples under rule of Ottoman Empire. Ottoman institutions and society; political, social, economic, religious, and cultural developments in Balkans in 15th, 16th, 17th, and 18th centuries. *Curp; Y.* 

5728 Balkans in 19th Century, 1804–1878 (5) Evolution of modern Balkan nationalism and rise of Balkan states. Ottoman dissolution and Balkan revolutionary nationalism; political, social, economic, religious, and intellectual developments; domestic Balkan policy and foreign intervention. Curp; Y.

572C Balkans in 20th Century, 1878–Present (5) Historical, cultural, and ethnic background of Balkan peoples. Social, economic, political, and intellectual developments in Balkans; communication of southeast European states. Curp; Y.

# 574A Balance of Power: Napoleon to the Kaiser (5)

Diplomatic history from Congress of Vienna to WWI. Age of Metternich, Italian and German unification, new imperialism, and prewar alliances and alignments. Y.

#### 574B History of International Diplomacy, 1914–1939 (5)

International problems of peace and war, international organization and alliances. Goda; Y.

#### 574C History of International Diplomacy, 1939–Present (5)

International problems of peace and war on worldwide scale since 1939, international organization and alliances. Goda; Y.

#### 575 World War I (5)

Covers the origins of the war, both diplomatic and strategic, as well as the peacemaking afterward, but the central focus will be the war itself. Richter; Y.

# 576 Biography: Leaders in 19th-Century Europe (5)

Lives of great and near-great in 19th-century Europe. D.

#### 579 Navies and World Power (5)

Students examine the role of navies and maritime strategy in war, diplomacy, and the world economy from ancient times to the present. The focus is on the development of the British and American sea power: doctrine and operations; the impact of politics, culture, geography, finance, and technology; and the future of sea power.

#### 580 Geopolitics and History(5)

The development and influence of global strategic views in the context of European imperialism, the two world wars, and the Cold War: major thinkers such as Mackinder, Mahan, and Haushofer; the impact of air power, space and information warfare; the outlook of emerging powers, including China and India; geopolitics and the interpretation of international history.

#### 582A History of Russia (5)

Russia from earliest times to 1825. Kievan Russia, Muscovy, emergence of Tsarist Russia. Territorial expansion and role as great power in Europe and Asia. *Miner;* Y.

582B Russia: Road to Revolution, 1825–1917 Tsarist Russia to Soviet Union, 1825–1917; background for revolution. Bolshevik seizure of power and consolidation of dictatorship. *Miner; Y.* 

#### 582C Soviet Union (5)

Soviet Union after death of Lenin (1924); internal affairs of Communist regime. *Miner*; Y.

582D The Soviet Union in World War II (5) History of the Soviet Union during WWII. Topics covered include wartime diplomacy, espionage, social and political history of the US5R during the war, the creation of the communist states in eastern Europe after the war, and the origins of the cold war. *Miner*; Y.

589 Later Medieval England, 1307–1485 (5) Comprehensive examination of political, social, intellectual, ecclesiastical, and economic aspects of period. *D.* 

#### 590A Tudor England (5)

England in 16th century. Tudor politics, English Reformation, and major cultural and economic developments of Shakespeare's England. Y.

#### 590B Stuart England (5)

England in 17th century. Constitutional crisis of Stuart period, civil war and revolution, and major cultural and economic developments, including attention to folk culture. Y.

591 Colloquium in English History to 1714 (5) Early modern English history from multidisciplinary perspectives. *D.* 

#### 591A English History to 1688 (5)

Stresses institutional aspects of medieval England and social, political, and constitutional developments in Tudor and Stuart periods. Y.

#### 591B English History Since 1688 (5)

Emphasizes cultural and economic developments, growth of British Empire, constitutional and social reforms, and impact of WWI and WWII. Brobst: Y.

#### 592A Georgian England (5)

Political, social, intellectual, cultural, and economic developments of England in years prior to and during American and French revolutions. Y.

#### 592B Victorian England (5)

England from 1815 to 1900, with primary focus on political and economic developments that produced democratization of British life. *Brobst; Y.* 

592C 20th-Century England (5)

England from 1900 to present: beginning of welfare state, WWI, 1920s, Great Depression, road to WWII, and postwar welfare state. Brobst; Y.

592D British Empire (5)

The rise and fall of the British Empire: constitutional, strategic, and economic problems since 1783; ideologies of empire; the importance of Canada, Australia, New Zealand, and South Africa; de-colonization. Brobst; Y.

592E 8ritish India and the Great Game (5) The rise, fall, and legacy of British rule on the Indian subcontinent; imperial competition. conquest, and strategy in South and West Asia; ideologies of the Raj; the emergence and variety of Indian nationalism; the background and effect of independence and partition in 1947. Brobst; Y.

594A The Medieval English Constitution (5) English government from Anglo-Saxon times to end of Middle Ages. Growth of machinery of monarchy, central administration, courts, and common law. Rise of Parliament, Reeves; D.

5948 The Modern English Constitution (5) Emergence of modern English constitution druing 16th and 17 th centuries; creation and growth of Tudor Constitution; significance of English reformation for constitution; problems of sovereignty and obligation; constitution today.

595 History of Canada (5)

Introduction to Canada: its exploration and development under France and England, and its emergence as important modern nation. D.

Quantitative Methods in History (5) Introduction to descriptive and inductive statistical techniques used in historical research and analysis of current literature employing such techniques. Instruction in use of computer included. Field; D.

597A Representative Historians and Their

Writings: American History Emphasis (5) Readings in historical logic and method. Development of historical profession in U.5. from early times to present as phase of American social and intellectual history. In-depth consideration of important writers of American history and major schools of interpretation. Hamby; Y.

5978 Representative Historians and Their

Writings: European History Emphasis (5) Typical historians from time of Herodotus. Readings from their masterpieces to illustrate schools of interpretation, philosophies of history, and development of historical writing. Noteworthy historians in European history. Y.

597C African Historiography (5) Related philosophies of history, the uses of history, colonial and post-colonial African historiography, research methodology, use of oral sources, interdisciplinary approaches, and new directions in research. D.

598A Directed 5tudy: American History (1-6) Prereq: perm. Intensive individual work either in research or individual systematic reading along lines of student's special interest and under supervision of staff members. Y.

5988 Directed 5tudy: European History (1-6) Prereg: perm. Intensive individual work either in research or individual systematic reading along lines of student's special interest and under supervision of staff members. Y.

598C Directed Study: World History (1-6) Prereg: perm. Intensive individual work either in research or individual systematic reading along lines of student's special interest and under supervision of staff members, Y.

598D Problems in History (General) (1-6) Prereq: perm. Intensive individual work either in research or individual systematic reading along

lines of student's special interest and under supervision of staff members. Y.

600/800 Seminar: Colonial and Revolutionary America (10)

Readings and research in U.S. history prior to 1789. Presented in two-quarter sequence. No credit granted until second quarter is completed. D.

601A/801A Colloquium in Colonial American History (5)

Literature and source materials; readings and reports, Griffin; D.

6018/8018 Colloquium in the Era of the American Revolution (5)

Literature and source materials; readings and reports. Griffin; D.

602/802 Colloquium in U.5. Women's History (5) Literature and source materials in field of early national period of American history; readings and reports. Jellison; Y.

605/805 Colloquium in American History 1783-1819 (5)

Literature and source materials; readings and reports. Griffin, Fidler; D.

607/807 Colloquium in the Era of Sectional Controversy, 1819-1850 (5)

Literature and source materials; readings and reports. Field; D.

608/808 Seminar in United States History, 1850-1900 (10)

5elected topics in political history of U.S. in late 19th century. Presented in two-quarter sequence. No credit granted until completed. Field; D.

609/809 Colloquium in the Era of Foundations of Modern America, 1850-1900 (5) Literature and source materials; readings and reports. Field; D.

610/810 Seminar in 20th-Century United States History (10)

Presented in two-quarter sequence. No credit granted until second quarter completed. Mattson, Milazzo, Pach; D.

611/811 Colloquium in the History of the United States in Recent Times (5)

Literature and source materials; readings and reports, Mattson, Pach; D.

614/814 Seminar in the Social, Intellectual, and Cultural History of the United 5tates (10)

Presented in two-guarter sequence. No credit granted until second quarter completed. Jellison, Mattson; D.

615/815 Colloquium in the Social, Cultural, and Intellectual History of the United States (5)

Literature and source materials; readings and reports. Jellison, Mattson; D.

616/816 Seminar in the History of United States Foreign Relations (10)

Presented in two-quarter sequence. No credit granted until second quarter completed. Pach;

617/817 Colloquium in the History of American Foreign Relations (5)

Literature and source materials; readings and reports. Pach; D.

621/821 Colloquium in Regional United States History (5)

Literature and source materials; readings and reports. Staff; D.

627/827 Colloquium in Recent Latin American History (5)

Literature and source materials; readings and reports. Grow; D.

629/829 Colloquium in History of Ancient Greece (5)

Literature and source material of ancient Greek civilization. Themes vary from year to year. May be repeated for credit. D.

640/840 Seminar in African History (10) Presented in two-quarter sequence. No credit granted until second quarter completed. Hawthorne; D.

644/844 Seminar: Southeast Asia (10) Presented in two-quarter sequence. No credit granted until second quarter completed. Frederick; D.

645/845 Colloquium in History of Southeast Asia (5)

Literature of southeast Asian history, general culture, developments in 19th and 20th centuries. Readings and reports. Frederick; D.

646/846 Seminar: Fast Asian History (10) Presented in two-guarter sequence. No credit granted until second quarter completed. Jordan; D.

652/852 Seminar in Medieval History (10) Presented in two-quarter sequence. No credit granted until second guarter completed, D.

657/857 Seminar in Renaissance-Reformation (10) Presented in two-quarter sequence. No credit granted until second quarter completed. Bebb; D.

658/858 Seminar in Early Modern European History (10)

Presented in two-quarter sequence. No credit granted until second quarter completed. Baxter; D.

661/861 Colloquium in French Revolution (5) French Revolution as prototype of revolutions: background, immediate causes, pattern of development, role of ideas and individuals in great social upheaval. Baxter; D.

662/862 Seminar in 19th-Century European History (10)

Presented in two-quarter sequence. No credit granted until second quarter completed. D.

663/863 Colloquium in 19th-Century Europe (5) Literature and source materials; readings and reports. D.

664/864 Seminar in 20th-Century European History (10)

Presented in two-quarter sequence. No credit granted until second quarter completed. Brobst, Curp, Miner; D.

667/867 Colloquium in Modern France (5) Literature and source materials; readings and reports. D.

674/874 Seminar in European Diplomacy Since 1815 (10)

Presented in two-quarter sequence. No credit granted until second quarter completed. Goda; D.

683/883 Colloquium in Russian and Soviet History (5)

Literature and source materials; readings and reports. Miner; D.

693/893 Colloquium in British History 5ince 1714 (5)

Literature and source materials; readings and reports. Brobst; D.

695 Thesis (as recommended by dept)

798A Directed Study: American History (1–6)
Prereq: perm. Intensive individual work in either research or individual systematic reading along lines of student's special interest and under supervision of staff members.

7988 Directed Study: European History (1–6)
Prereq: perm. Intensive individual work in either research or individual systematic reading along lines of student's special interest and under supervision of staff members.

798C Directed Study: World History (1–6)
Prereq: perm. Intensive individual work in either research or individual systematic reading along lines of student's special interest and under supervision of staff members.

894 Independent Study (1–16)
Prereq: Eligibility determined by grad faculty.

895 Dissertation (as recommended by dept)

#### Indonesian

See Foreign Languages and Literatures.

#### Linguistics

http://www.ohio.edu/linguistics/dept/welcome.html

The Department of Linguistics offers a Master of Arts in linguistics and the teaching of English to speakers of other languages (TESOL). The program normally takes two years to complete and requires a thesis or research essay.

Admission to graduate study in linguistics requires no specific undergraduate preparation, but a background in English, foreign language, speech, psychology, mathematics, or philosophy is particularly relevant. Transcripts of all previous study must be submitted and must indicate strong promise of success in graduate study. Transcripts also must include the equivalent of two years of college-level study of foreign language. Admission is possible if you cannot meet this requirement, but it must then be satisfied by concurrent nondegree study. Nonnative speakers of English may use their study of English to satisfy the requirement. Teacher training and experience are desirable as preparation for native students intending to follow the TESOL curriculum. For nonnative applicants, both teacher training and an undergraduate major in English are recommended and a TOEFL score of 600 or higher on the paper form or 250 on the computerized form is required.

While there is no specific deadline for submission of application materials,

new applicants are normally admitted only in the fall quarter. Applicants for financial aid for the following academic year should apply by February 15.

A certificate in teaching English as a foreign language (TEFL) is also available for graduate students from any field. The sequence includes courses in linguistic theory and TEFL methodology: LING 510, 550, 575, 580, and 582. It is offered every academic year and during the summer. Admission to the linguistics program is not required, but international students must have a TOEFL score of 57S or higher on the paper form or 230 on the computerized form.

Specific information about the programs and requirements is available from the chair, Department of Linguistics, Ohio University, Gordy 383, Athens OH 45701-2979.

#### Linguistics Courses (LING)

510 Language Teaching Practicum (3) Supervised graduate student teaching. Required once for all M.A.–TESOL majors and all teaching associates. F, Sp, Su; Y.

512 Internship in TESOL (1-5)
Prereq: Perm. Supervised internship in ESL teaching, instructional support, or program administration. *Bell; F, W, Sp, Su; Y* 

#### 515 Distributed Learning Courseware Development I (4)

First course in a sequence designed to provide training in developing instructional courseware that can be distributed on disks or via the Internet. Soemarmo; Su; Y.

# 516 Distributed Learning Courseware Development II (4)

Prereq: 515. Second course in a sequence designed to provide training in developing instructional courseware that can be distributed on disks or via the Internet. Soemarmo; Su; Y.

**520** Linguistics and Semiotics (4)
Prereq: 550. Analysis and interpretation of cultural sign systems from the perspective of linguistic theory and methodology. *Flanigan; D.* 

540 Introduction to Bilingualism (5) Prereq: 550. Introduction to basic aspects of bilingual education from legal, sociological, linguistic, and educational perspectives. Flanigan; 5p; Y.

545 Instructional Materials in 8ilingualism (5) Prereq: 540. Analysis and creation of bilingual teaching materials. *D*.

**550** Introduction to General Linguistics **(5)** Technical introduction to linguistics, devices of language description, and methods of linguistic analysis. *Staff, F, Su; Y.* 

551 Computers for Language Teaching I (4) Prereq: 550. Introduction to uses of computers for language teaching, software selection, and creation of supplementary computer-assisted language learning (CALL) materials. Soemarmo; W; Y.

552 Computers for Language Teaching II (4) Prereq: 551 and 580 or 581 or concurrent. Creation of CALL materials using authoring packages, authoring languages, or JAVA programming language. Soemarmo; 5p; Y.

553 Computers for Language Teaching III (4) Prereq: 552. Introduction to development of CALL materials using speech synthesis, interactive audiotape, videotape, or videodisc player. Soemarmo; F: D.

# 555 Introduction to Graduate Study in Linguistics (5)

Introduction and orientation to field of linguistics and its research resources, D.

#### 560 Phonology (5)

Prereq: 550 or concurrent. Introductory course in analysis of sound systems of natural languages. Coady; F; Y.

565 Theories of Phonology (5)
Prereq: 560. Latest developments in phonological theory, concentrating on theory of generative phonology in contrast with classical phonemic theory. Bond; D.

#### 570 Syntax (5)

Prereq: 550. Introduction to theories and applications of grammatical analysis. *McGinn; W;* Y.

572 Theories of Grammar (5)
Prereq: 570. Study of competing contemporary
models of grammatical description. *McGinn*,
Soemarmo; D.

575 Theories of Language Learning (5) Prereq: 550 or concurrent. Theories of first- and second-language acquisition and their applications to development and evaluation of language teaching methodology. *Jarvis, Flanigan; F, W, Su; Y.* 

580 TEFL Theory and Methodology (5) Prereq: 575 or concurrent. Second language teaching theory and methodology, with emphasis on teaching English as a foreign language. Jarvis, Bell; W, Su; Y.

581 Methods and Materials in TESL (5)
Prereq: 575 or concurrent. Introduction to
techniques of teaching English in a second
language context, with emphasis on the creation
and evaluation of instructional materials for
public school ESL. Su; D.

#### 582 Materials in TEFL (5)

Prereq: 580 or concurrent. Theory and practice of analysis, evaluation, and creation of instructional materials for teaching English as a foreign language. *Bell, Jarvis; Sp, Su; Y.* 

583 Proseminar in TEFL: Testing (5)
Prereq: 580 or 581 or concurrent. Advanced
research in special problems in testing English as
a second or foreign language. Jarvis; Sp; Y.

#### 585 Historical Linguistics (5)

Prereq: 560, 570. Study of genealogical and typological classification of languages, methods of historical analysis, and change in language systems. Bond, McGinn; W; Y.

#### 590 Sociolinguistics I (5)

Prereq: 550. Language varieties and their social functions with implications for educational policy and national language planning. Flanigan; Sp; Y.

#### 591 Sociolinguistics II (5)

Prereq: 590. Introduction to interrelationships between language and social groups. *Flanigan; D.* 

**595** Seminar in Area Linguistics (5)
Research on particular aspects of languages of a given area. *McGinn; D.* 

596 Field Methods (5)

Prereq: 560, 570. Methods of eliciting, transcribing, organizing, and analyzing linguistic data. Bond, McGinn; Sp; D.

600 Studies in Linguistics (1–4)
Directed individual investigation of particular area of interest in linguistics. F, W, Sp, Su; Y.

609 Colloquium in Linguistics (1-2)
Occasional lectures on topics related to theoretical and applied linguistics. F, W, Sp; Y

**620** Research in Linguistics (S)
Prereq: 575. Introduction to aspects of research design in applied linguistics. *Jarvis*; F; Y.

640 Topics in Applied Linguistics (5)
Prereq: 575. Critical examination of basic assumptions, approaches, and methods of particular subfields of applied linguistics. D.

**652** Computational Linguistics (3) Prereq: 550. Application of computers to linguistic research and teaching. Soemarmo; D.

**661** Phonological Structures of English (5) Prereq: 550, 560. Introduction to pedagogical issues related to the teaching of listening and speaking in ESL/EFL settings. *Staff; W; Y.* 

671 Syntactic Structures of English (5)
Prereq: 570. Introduction to pedagogical issues related to the teaching of English grammar in ESL/EFL settings. *Bell; F; Y.* 

675 Linguistic Semantics (5)Prereq: 570. Introduction to the study of meaning in three disciplines: linguistics, psychology, and philosophy. McGinn, Soemarmo; Y.

**682** Proseminar in Applied Linguistics (5) Prereq: 620. Research and writing on a special problem in applied linguistics or teaching English as a second or foreign language. *Staff, W, Y.* 

685 Proseminar in Applied Linguistics: Reading and Writing (5)

Theories and applications of reading and writing research. Bell, Jarvis; Sp; Y.

690 Languages in Contact (4)

Prereq: 560, 570. Social, psychological, and pedagogical consequences of language contact, with emphasis on linguistic transfer, borrowing, and pidginization and creolization. *D.* 

695 Thesis (5-10)

Prereq: 620. Advanced research culminating in a thesis. W, Sp; Y.

**800** Readings in Linguistics (2–5)
Directed readings for advanced students. *F, W, Sp, Su; Y.* 

#### Malaysian

See Foreign Languages and Literatures.

#### Mathematics

http://www.math.ohiou.edu/

The Department of Mathematics offers the Master of Science and the Doctor of Philosophy. At the master's level, programs are available in applied mathematics, computational mathematics (also known as the computer science option), mathematics for secondary school teachers, and pure mathematics. At the doctoral level, you may specialize in algebra,

analysis, topology, or applied mathematics. The principal feature of graduate study in mathematics is the possibility of designing a study plan to meet your individual needs and interests.

To be admitted to graduate study, you should have an undergraduate average of at least a B (3.0 on a 4.0 scale). If you plan to pursue the study of pure or applied mathematics, your undergraduate program should have included advanced calculus and junior- or seniorlevel courses in abstract and linear algebra. Students pursuing the computational mathematics program (CS option) should have completed at least a full course sequence in calculus, differential equations and linear algebra, and computer science courses in C++, microprocessors, discrete structures, and data structures prior to admission. Students specializing in secondary education should have completed the calculus sequence and courses in geometry and algebra. If you are admitted with deficiencies, you will be expected to make up the deficiencies during the first year.

The Master of Science degree may be taken with or without a thesis—no examination is required. Under the nonthesis option for pure and applied mathematics majors, the minimum amount of coursework is 45 quarter hours. At least three courses must be taken at the 600-level or above. If most of your work is on the 500 level, the graduate committee may require more than 45 hours, but not more than 60. (The usual requirement is 55 hours.) The coursework should include at least two mathematics sequences, e.g., algebra, analysis, topology.

To pursue the program in computational mathematics (CS option), you must complete a minimum of 27 graduate hours beyond the 5xxN level in computer science and a minimum of 27 graduate hours in in mathematics. Up to 10 of these 54 hours can be taken as a project or a thesis.

Specific mathematics requirements for the program in computational mathematics (CS option) include MATH 510, Matrix Theory, plus three courses from the following group of courses: MATH 511, Linear Algebra; MATH 512, Introduction to Algebraic Coding Theory; MATH 542, Theory of Linear and Nonlinear Programming; MATH 543, Mathematical Modeling and Optimization; MATH S44, Introduction to Numerical Analysis; MATH 545, Advanced Numerical Methods; MATH 546, Numerical Linear Algebra; MATH 610, 611, Topics in Applied Abstract Algebra; MATH 640ABC, Numerical Analysis; MATH 642 ABC, Optimization Theory; MATH 692, Project in Computational Mathematics; MATH 695, Thesis; plus three additional mathematics courses to be selected in consultation with the advisor. The above list of courses is subject to periodic updates by the Graduate Committee.

Specific computer science requirements include CS 506, Computation Theory, plus two courses each from two of the following areas: Theory (CS 504, 510, 604, 605, 606), Operating Systems and Data Communication (CS 542, 544, 558, 644), Databases (CS 562, 563), Software Development (CS 657ABC), Compilers (CS 620, 621). The remaining two computer science courses are to be selected in consultation with the advisor from the above list or other areas of computer science.

With the assistance of your faculty advisor, you must submit a plan of study approved by the graduate chair by the end of your first quarter. Any changes to this study plan must be approved by your faculty advisor and the graduate chair at least one quarter before you apply for graduation.

The Department of Mathematics, together with the College of Education, offers a joint program for secondary school teachers. The master's degree may be taken in either the College of Education or the Department of Mathematics. Expect at least half of your credits to be earned in mathematics. Topics studied are geometry, algebra, number theory, and analysis. A minimum of 50 hours is required.

No specific courses are required for the Ph.D., but each student must pass a comprehensive examination and write an acceptable dissertation.

The dissertation is expected to be a scholarly work demonstrating your ability to understand, organize, improve, and present mathematical ideas of outstanding importance, depth, or interest. It should include original mathematical research and be worthy of publication.

The Department of Mathematics encourages its students to develop the ability to read mathematics in those languages which predominate the literature of the discipline. Students in post-master's courses are expected to understand mathematics written in one or more of the following languages: French, German, or Russian.

All graduate-level computer science courses except 521, 522, and 599 may be used to satisfy requirements for a graduate degree in mathematics.

Applications for the computational mathematics option will only be considered for the Fall Quarter. Review of applications for this option will begin on February 1. For all other options of our graduate program, you may apply for admission for any quarter. To apply for financial aid for the following academic year, you should apply by February 1, although late applications will be considered if vacancies exist.

#### **Mathematics Courses (MATH)**

500 History of Mathematics (4)
Main lines of mathematical development in
terms of contributions made by great mathematicians: Euclid, Archimedes, Descartes, Newton,
Gauss, etc.

506 Foundations of Mathematics II (4) Introductory topics in set theory and axiomatic development of real number system.

507 Number Theory (4)
Prereq: 307. Topics in number theory.

510 Matrix Theory (4)

Primarily intended for science and engineering majors. Topics include matrix algebra and matrix calculus, matrix solutions of systems of linear equations, eigenvector and eigenvalue problems, quadratic forms, and inner product spaces.

511 Linear Algebra (4)

Vector spaces and linear transformations; matrices and determinants; characteristic roots and similarity; dual spaces; classification of quadratic and Hermitian forms.

512 Introduction to Algebraic Coding Theory (4) Prereq: 211, 410. Encoding and decoding. Vector spaces over finite fields. Linear Codes, parity-check matrices, syndrome decoding, Hamming Codes, and Cyclic Codes.

513A Introduction to Modern Algebra (4)
Prereq: 511 or equivalent mathematical
experience. Groups, permutation groups,
subgroups, normal subgroups, quotient groups.
Conjugate classes and class equation formula
and its application to p-groups. Fundamental
theorem on homomorphisms.

513B Introduction to Modern Algebra (4)
Prereq: 513A. Fundamental theorem on finite abelian groups and its consequences. Cauchy theorem and first 5ylow theorem. Polynomial rings. UFD and Euclidean domains. Maximal ideals. Algebraic extensions and splitting fields. Fundamental theorem of Galois theory.

529 Topics in Mathematics of Elementary and Secondary Schools (1–5)

Selected topics related to teaching of mathematics in grades K-12. May be repeated for credit.

539 Topics in Geometry (1-5)

When demand is sufficient, a course in some phase of geometry will be offered under this number. May be repeated for credit.

540 Vector Analysis (4)

Vector algebra and its applications. Vector calculus and space curves. Scalar and vector fields, gradient, divergence, curl, and Laplacian. Line and surface integrals, divergence theorem, Stoke's theorem, and Green's theorem.

# 541 Fourier Analysis and Partial Differential Equations (4)

Representation of functions as sums of infinite series of trigonometric functions, Bessel functions, Legendre polynomials, or other sets of orthogonal functions. Use of such representations for solution of partial differential equations dealing with vibrations, heat flow, and other physical problems.

#### 542 Theory of Linear and Nonlinear Programming (4)

Prereq: 510 or equiv; computer programming experience desirable. Minimization of functions subject to equality and inequality constraints. Kuhn-Tucker theorem, algorithms for function minimization, such as steepest descent and conjugate gradient, and penalty function method. (Not a course in computer programming.)

# 543 Mathematical Modeling and Optimization (4)

Prereq: 211, 340, or 410, FORTRAN. Differential equation models of wide variety of physical, social, and biological phenomena presented. Qualitative analysis introduced and used to investigate models. Optimal criteria incorporated to convert models to optimal control problems. Pontriagin's maximal principle used to find analytic solutions. Numerical solutions to optimal control problems also treated.

544 Introduction to Numerical Analysis (4)
Prereq: C5 521 and undergrad course in
differential equations. Iterative methods for
solving nonlinear equations, polynomial
interpolation and approximations, numerical
differentiation and integration, numerical
solution of differential equations, error analysis.

545 Advanced Numerical Methods (4)
Prereq: 541 and 544 or EE 778 and CHE 501.
Initial and boundary value problems; numerical solutions of parabolic, elliptic, and hyperbolic equations; stability; error estimates; applications to engineering problems. (Also offered as ET 545.)

546 Numerical Linear Algebra (4)

Prereq: MATH 510 and FORTRAN. Floating point arithmetic, numerical solution of systems of linear equations using Gaussian elimination and its variants, numerical techniques for eigenvalues, error analysis, and implementation of algorithms on computer.

549 Advanced Differential Equations (4)
Prereq: undergrad course in differential equations and 510 or 511. Introduction to theory of ordinary differential equations with special attention to oscillation, plane autonomous systems, Liapunov theory, and quadratic functionals.

550A Theory of Statistics (4)

Probability distributions of one and several variables, sampling theory, estimation of parameters, confidence intervals, analysis of variance, correlation, and testing of statistical hypotheses.

5508 Theory of Statistics (4) Prereq: 550A. Continuation of 550A. See 550A

550C Theory of Statistics (4)

for description.

Prereq: 550B. Continuation of 550A-B. See 550A for description.

551 Stochastic Processes (4)

Prereq: 550B. Markov chains, Poisson process, birth and death process, queuing, and related topics.

552 Statistical Computing (4)

Prereq: 5508. Introduction to computational statistics; Monte Carlo methods, bootstrap, data partitioning methods, EM algorithm, probability density estimation, Markov Chain Monte Carlo methods.

555 Basic Principles of Actuarial Science (4)
Prereq: 550A. Basic concepts of risk theory and
utility theory, applied calculus and probability
models for the analysis of claims, frequency and
severity of distributions, loss distributions,
premium determinations, insurance with
deductible, reinsurance, and self-insurance.

556 Theory of Interest and Life Contingencies (4)

Prereq: 550A. Theory of interest and contingent payment models. Mathematical models for the actuarial present value of a future set of payments contingent on some random event(s); life insurance, life annuities, benefit reserves.

560A Advanced Calculus (4)

Prereq: undergrad course in introductory analysis. Critical treatment of functions of one or several variables. Topics in the 560A-B-C sequence include the basic topological features of Euclidean spaces, a careful study of limits and continuity, Reimann-Stieltjes integration, uniform convergence, and multidimensional differentiation and integration.

**560**B Advanced Calculus **(4)**Prereq: 560A. Continuation of 560A. See 560A

560C Advanced Calculus (4)

for description.

Prereq: 560B. Continuation of 560A-B. See 560A for description.

570 Complex Variables (4)

Analytic and harmonic functions, Cauchy integral and residue theorems, contour integration, Taylor and Laurent expansions, conformality and linear transformations with applications.

**580A** Elementary Point 5et Topology **(4)** Topology of Euclidean spaces and general metric spaces.

580B Elementary Point 5et Topology (4) Prereq: 580A. Introduction to general topological spaces.

586 Introduction to Bioinformatics (5)
Prereq: Perm. Major topics and techniques in bioinformatics, including homology searches, sequence alignment, gene finding, phylogenetic trees. The course combines biological, mathematical, computational, and statistical approaches to the extraction of information from large sets of biomolecular data.

599 Selected Topics in Mathematics (1–15) May be repeated for credit.

600A Set Theory (5)

Introduction to axiomatic set theory; ordinals and cardinals; equivalents of axiom of choice.

600B Set Theory (5)

Prereq: 600A. Introduction to combinatorial set theory, trees, partitions relations, closed unbounded and stationary sets, Martin's Axiom. 610 Topics in Applied Abstract Algebra (5)

Prereq: S13A or perm. Applications of abstract systems such as groups, rings, fields, vector spaces to problems in computer science, engineering, physical, biological, and social sciences. Topics may vary from year to year at the choice of the instructor. The following are some examples: Applications of Boolean algebra to switching circuits; Algebraic cryptography; Balanced Incomplete Block Designs.

611 Topics in Applied Abstract Algebra— Group Theory Applications (5)

Prereq: 513A or perm. Topics include: Polya's enumeration theory; color patterns; Burnside and Polya's theorems; cycle index polynomial and color pattern inventory; number of nonisomoporphic graphs on n vertices with m edges. Symmetry of groups of wallpaper patterns (two-dimensional crystals): group of symmetries of a plane; wallpaper pattern groups; point groups; crystallographic restrictions; classification of nonequivalent WP groups; seventeen types of symmetry.

613 Group Theory (5)

Prereq: S13A; no credit if 613A. G-sets. Orbits and stabilizers. Orbit decomposition formula. Permutation groups. Alternating groups. Simple groups. Composition series. Jordan-Holder Theorem. The Sylow Theorems. Fundamental theorem of abelian groups. Solvable and nilpotent groups.

614 Rings and Modules (5)

Prereq: S13B; no credit if 613B. Rings of power series and Laurent series. Division rings. Prime and maximal ideals in a ring (not necessarily commutative). Nil radical. Rings of quotients of domains (not necessarily commutative). Artinian and Noetherian rings and modules. Hilbert Basis Theorem. Completely reducible modules. Semisimple Artinian rings. Free, projective, and divisible modules. Tensor product of modules and algebras.

615 Galois Theory (5)

Prereq: \$13B; no credit if 613C. Polynomial rings. Irreducible polynomials. Quotient rings. Eisenstein Criterion. Algebraic extension. Algebraically closed fields. Splitting fields. Normal and separable extensions. Finite fields. Fixed fields. Fundamental Theorem of Galois Theory. Solvability by radicals. Constructability by ruler and compass.

630A Tensor Analysis on Manifolds (5)

Prereq: S11, S60C. Manifolds, tensor algebra, vector analysis on manifolds, differential forms, exterior derivatives, 5tokes theorem, Riemannian and semi-Riemannian manifolds, curvature and torsion tensors.

630B Tensor Analysis on Manifolds (S)

Prereq: 630A. Continuation of 630A. See 630A for description.

630C Tensor Analysis on Manifolds (5)

Prereq: 630B. Continuation of 630A-B. See 630A for description.

640A Numerical Analysis (5)

Prereq: 511, 570. Approximation by piecewise polynomial functions, variational principles, variational formulation of partial differential equations. The Rayleigh-Ritz-Galerkin method, convergence of approximations, time-dependent problems, isoparametric elements and nonconforming finite element methods, applications.

640B Numerical Analysis (5)

Prereq: 640A. Continuation of 640A. See 640A for description.

640C Numerical Analysis (5)

Prereq: 640B. Continuation of 640A-B. See 640A for description.

**641A** Methods of Applied Mathematics **(5)** Prereq: 560C, S10 and 340. Course content varies. May be repeated for credit.

641B Methods of Applied Mathematics (5) Prereq: 641A. Course content varies. May be repeated for credit.

**641C** Methods of Applied Mathematics **(5)** Prereq: 641B. Course content varies. May be repeated for credit.

642A Optimization Theory (5)

Prereq: 560A,B,C; 510; 340. Classical problems of calculus of variation; Euler-Lagrange, Dubois-Reymond, Legendre, and Weierstrass necessary conditions; formulation of classical problems as nonlinear programming problems in function space.

642B Optimization Theory (5)

Prereq: 642A, 660C, FORTRAN. Numerical solutions of boundary value problems; formulation and solution of optimal control problems with set, equality, and inequality constraints; applications to economics, classical mechanics, and engineering.

642C Optimization Theory (5)

Prereq: 642B. Pontriagin's maximal principle is derived and applied to optimal control problems. Numerical solutions considered more fully.

645A Differential Equations (5)

Prereq: 560C, 510, 541. Gronwall's inequality; existence and uniqueness; linear equations; autonomous equations; periodic solutions; stability; characteristics of first-order p.d.e.; classification of second-order equations into elliptic, parabolic, and hyperbolic types; special consideration of Laplace's equation, heat equation, and wave equation; hyperbolic systems, etc.

645B Differential Equations (5)

Prereq: 645A. Continuation of 645A. See 645A for description.

645C Differential Equations (5)

Prereq: 645B. Continuation of 64SA-B. See 645A for description.

647A Special Functions (5)

Prereq: 560C and 570, or 670A. Infinite products; Gamma, Beta, and Zeta functions; asymptotic series; cylindrical functions; spherical functions; orthogonal polynomials; Legendre, Hermite, and Laquerre polynomials.

647B Special Functions (5)

Prereq: 647A. Continuation of 647A. See 647A for description.

651A Linear Models (5)

Prereq: \$50C; \$10 or \$11. Simple linear and multiple regression models, one-sample and one-factor analysis of variance, analysis of residuals, generalized linear models, analysis of deviance as a generalization of the analysis of variance.

651B Time Series Analysis (5)

Prereq: 651A. Introductory examples and models, autocorrelation, stationary processes, ARMA models, spectral analysis, nonstationary time series, state-space models, further topics and applications.

652 Experimental Design (5)

Prereq: SSOC. Randomization, blocking, Latin squares, balanced incomplete block designs, factorial experiments, confounding and fractional replication, components of variance, orthogonal polynomials, response surface methods.

660A Real Analysis (5)

Prereq: S60C. Abstract measure and integration, Lebesgue measure on real line; Lp-spaces; Fubini and Radon-Nikodym theorems; differentiation theory.

660B Real Analysis (5)

Prereq: 660A. Continuation of 660A. See 660A for description.

660C Real Analysis (5)

Prereq: 660B. Continuation of 660A-8. See 660A for description.

670A Complex Analysis (5)

Prereq: S60C. Analytic functions, multivalued analytic functions, power series, complex integration, Cauchy integral theorem, its extensions and consequences. Residue theorem, Taylor and Laurent expansions, max-modulus principle and its generalizations, elementary conformal mapping, conformal representations, Riemann surfaces, Weierstrass and Mittag-Leffler's factorization theorems, simple periodic functions, simple properties of elliptic functions, Dirichlet problem.

670B Complex Analysis (5)

Prereq: 670A. Continuation of 670A. See 670A for description.

670C Complex Analysis (5)

Prereq: 670B. Continuation of 670A-B. See 670A for description.

671A Potential Theory (5)

Prereq: 560C and 570, or 670A. Newtonian and logarithmic potentials, their continuity and discontinuity properties, Dirichlet problems, subharmonic functions, harmonic functions, etc.

671B Potential Theory (5)

Prereq: 671A. Continuation of 671A. See 671A for description.

680A Point Set Topology (5)

Prereq: 560C. General topological spaces, product and quotient spaces, convergence, separation, countability properties, compactness and paracompactness, connectivity, metric spaces, completion, metrization, completely regular spaces, uniform spaces.

680B Point 5et Topology (5)

Prereq. 680A. Continuation of 680A. See 680A for description.

680C Point 5et Topology (5)

Prereq: 680B. Continuation of 680A-B. See 680A for description.

690 Independent Study (1-15)

Independent study of topics under guidance of faculty member. May be repeated for credit.

692 Project in Computational Mathematics (5) Students complete an individual project such as design, implementation, testing, or analysis of an algorithm.

695 Thesis (arranged)

May be repeated for credit.

699 Topics in Mathematics (1–15) May be repeated for credit.

710A Group Theory (5)

Prereq: 613C. Abelian groups, permutation groups, Sylow theorems, solvable groups, group extensions, free groups and free products, group representation, and characters.

710B Group Theory (5)

Prereq: 710A. Continuation of 710A. See 710A for description.

711A Theory of Rings and Modules (5)

Prereg: 613C. Rings with minimum condition, Wedderburn theorems, Jacobson radical, Jacobson density theorem, commutativity conditions, algebras, Goldie theorems, modules, and chain conditions. 7118 Theory of Rings and Modules (5)
Prereq: 711A Continuation of 711A. See 711A for description.

730A Differential Geometry—Classical (5) Prereq: 613C, 660C, 680C. Local geometry of curves, local geometry of surfaces, tensors, Riemannian geometry, differential geometry in the large, applications.

7308 Differential Geometry—Classical (5) Prereq: 730A. Continuation of 730A. See 730A for description.

731A Differential Geometry—Modern (5) Prereq: 613C, 660C, 680C. Differentiable manifolds, calculus of variations, lie groups, differential geometry in Euclidean spaces, g-structures.

7318 Differential Geometry—Modern (5)
Prereq: 731A. Continuation of 731A. See 731A for description.

740A Ordinary Differential Equations (5) Prereq: 6458. Advanced topics in ODEs.

7408 Ordinary Differential Equations (5) Prereq: 740A. Continuation of 740A. See 740A for description.

**740C** Ordinary Differential Equations (S)
Prereq: 7408. Continuation of 740A-8. See 740A for description.

741A Partial Differential Equations (5) Prereq: 645C. Advanced topics in PDEs.

741B Partial Differential Equations (5)
Prereq: 741A. Continuation of 741A. See 741A for description.

741C Partial Differential Equations (4)
Prereq: 7418. Continuation of 741A-8. See 741A
for description.

760A Measure and Integration (5)
Prereq: 613C, 660C, 680C. Various types of measures and integrals in modern research.

**7608** Measure and Integration (5)
Prereq: 760A. Continuation of 760A. See 760A for description.

761A Functional Analysis (5)

Prereq: 660A. Normed linear spaces, Hilbert spaces, Hahn-Banach extension theorems, Banach-Steinhaus theorem, closed graph theorem, applications to differential and integral equations.

7618 Functional Analysis (5)

Prereq: 761A. Topics selected from spectral theory, Banach algebras, integration in Banach spaces, linear topological vector spaces, and other topics.

761C Functional Analysis (5)
Prereq: 7618. Continuation of 7618. See 7618
for description.

780A General Topology (5)

Prereq: 680C. Continuation of main line of development of 680A-8-C, but at deeper and more advanced level. Offered especially for students who intend to specialize in general topology.

7808 General Topology (5)
Prereq: 780A. Continuation of 780A. See 780A for description.

**780C General Topology (5)**Prereq: 7808. Continuation of 780A-B. See 780A for description.

809 Topics in the Foundation and History of Mathematics and in Number Theory (1–15) Selected topics not offered in normal course offerings. May be repeated for credit.

819 Topics in Algebra (1–15)
Detailed study of advanced topics not covered in other algebra courses. May be repeated for credit.

829 Topics in the Teaching of Mathematics (1–15)

Selected topics not covered in regular course offerings. May be repeated for credit.

839 Topics in Geometry (1–15)
Selected topics not covered in regular offerings
May be repeated for credit.

849 Topics in Applied Mathematics (1–15)
Selected topics not covered in regular offerings.
May be repeated for credit.

859 Topics in Probability, Statistics, and Stochastic Processes (1–15)
Selected topics not covered in regular offerings.

May be repeated for credit.

869 Topics in Real Analysis (1–15)

Selected topics not covered in regular offerings. May be repeated for credit.

879 Topics in Complex Analysis (1–15)
Special topics not ordinarily covered in other

courses. May be repeated for credit.

889 Topics in Topology (1–15)

Special topics not covered in other courses. May

890 Independent Study (1–15) Independent study under guidance of faculty member. May be repeated for credit.

891 Seminar (1–15) May be repeated for credit.

be repeated for credit.

895 Dissertation (arranged) May be repeated for credit.

#### **Modern Languages**

See Foreign Languages and Literatures.

# Molecular and Cellular Biology

http://www.biosci.ohiou.edu/mcb/

The Molecular and Cellular Biology Program offers graduate study leading to the Ph.D. in a broad range of areas in molecular and cellular biology. M.S. degrees with a concentration in molecular and cellular biology are also available in the Departments of Biological Sciences, Chemistry and Biochemistry, and Environmental and Plant Biology. The program provides and encourages an interdisciplinary approach to these studies.

Admission to the program requires simultaneous admission to the M.S. concentration in molecular and cellular biology or the Ph.D. program in the Department of Biological Sciences or Chemistry and Biochemistry. You must have a B.A., B.S., or M.S. in a biological or physical science. Criteria considered are coursework completed, grades, letters of recommendation, and scores on the Graduate Record Examination.

Unconditional admission requires an overall grade-point average of 3.0 on a 4.0 scale. Financial aid is contingent upon unconditional admission. International students for whom English is not the primary language are required to have earned a minimum grade of 620 on the Test of English as a Foreign Language (TOEFL). Although applications are considered at any time, to maximize the possibility of financial aid, submit completed applications and supporting materials before February 1.

Ph.D. study and research are guided by a doctoral advisory committee, which is formed by the end of the third quarter of study in the program. A great deal of the responsibility for determining the program of study is left to the committee. However, a required core curriculum consists of a year of biochemistry (CHEM 590, 591, 592), cell biology (MCB 760), molecular biology (MCB 720), and molecular and cellular biology laboratory (MCB 730). You are required to register for MCB 741 Seminar in Molecular and Cellular Biology when offered and must present at least one seminar each year. You must receive doctoral advisory committee approval of a written research proposal by the fifth quarter in the program and pass written and oral qualifying examinations by the end of the second year of study. Students receiving support from the Molecular and Cellular Biology Program are required to serve as a teaching associate for at least two quarters per academic year. You must defend your dissertation before the doctoral advisory committee at a public forum. In addition, you are required to present the dissertation research as a program seminar.

Study and research in the M.S. concentration in molecular and cellular biology are guided by a master's advisory committee, which is formed by the end of your third quarter of study in the program. The required core curriculum consists of biochemistry (CHEM 590), cell biology (MCB 760), molecular biology (MCB 720), and molecular and cellular biology laboratory (MCB 730). You are required to register for MCB 741 Seminar in Molecular and Cellular Biology when offered and present at least one

seminar each year. Additional course requirements for M.S. students admitted through the Department of Biological Sciences include biostatistics (BIOS 670); the Department of Chemistry and Biochemistry include additional biochemistry courses (CHEM 591 and 592); and the Department of Environmental and Plant Biology include plant physiology (PBIO 524), plant anatomy (PBIO 512), and one course from area C of the departmental modus (i.e., PBIO 525 Plant Ecology, PBIO 526 Physiological Plant Ecology, PBIO 754 Experimental Ecology, or PBIO 757 Plant Speciation). You must receive master's advisory committee approval of a written research proposal within one year after entry into the program; this research proposal must also be approved by the graduate chair of your home department. You also must pass a written qualifying exam immediately after your third quarter of academic study. If you are receiving support from the Molecular and Cellular Biology Program, you are required to serve as a teaching associate for at least two quarters per academic year. You are required to present your thesis at a public forum and orally defend it before your master's advisory committee.

#### Molecular and Cellular Biology Courses (MCB)

710 Advances in Signal Transduction (5)
Prereq: CHEM S92. Introduction to the advanced concepts in the area of agonist-receptor mediated biochemical signalling mechanisms. The topics include principles, experimental techniques and quantitative analysis of agonist-receptor interaction, ion channels, adrenergic and cholinergic receptors, classical and low molecular weight G proteins, second messengers, oncogenes, growth factors, steroid receptors, and signal transduction in bacteria and yeast. Evans, Colvin, James; Sp.

720 Molecular Biology (4)
Prereq: CHEM S90. Introduction to the basic concepts and techniques used in molecular biology. Topics include nucleic acid and chromatin structure, replication, recombination, the processes of transcription and translation.

the processes of transcription and translation and their regulation, plasmids, viruses, transposable elements, and techniques used in molecular biology. James, Kopchick, Showalter; W.

730 Molecular and Cellular Biology Laboratory (4)

Prereq: 720, 760, or PBIO 531. Exposes the MCB student to a wide variety of laboratory techniques used in the broad field of molecular and cellular biology by allowing the student to carry out these techniques in the laboratory. Showalter; Sp.

# 741 Seminar in Molecular and Cellular Biology (1)

Involves student presentation and discussion of seminars on topics of current interest in the area of molecular and cellular biology. F, W, Sp.

#### 751 Topics in Molecular and Cellular Biology (2–6, max 12)

Designed for the presentation of significant current topics in molecular and cellular biology in response to specific student demand. D.

760 Advanced Cell Biology (4)
Prereq: CHEM S92. A discussion of current research directions in cell biology. Topics include, but are not limited to, protein transport and targeting, cell cycle, membrane transport and excitability, and cellular differentiation. Emphasis on current research directions of these topics.

#### Ohio Program of Intensive English

http://www.ohio.edu/opie/

#### **OPIE Courses (OPIE)**

Horodyski; W.

### 521 Elementary Core Skills (9)

Prereq: perm. 12-hour core component of a full time (20 hours/ week) course in English as a second language for students at the elementary level whose ultimate aim is academic study. Core Skills class focuses on basic grammar and communication skills. Writing sometimes included. Focus is on American English for effective communication both inside and outside the classroom.

S22 Elementary Listening/Speaking (4)
Prereq: perm. This course is one component of full
time study of English as a second language for
students at the elementary level whose ultimate
aim is academic study. Four hours of classroom
instruction are designed to provide students with
instruction and practice in basic listening and
speaking for everyday communication.

S23 Elementary Reading/Writing (4)
Prereq: perm. This course is one component of full time study of English as a second language for students at the elementary level whose ultimate aim is academic study. Four hours of classroom instruction are designed to provide students with instruction and practice in reading and vocabulary. Students build their reading skills by learning reading strategies and practicing with readings and exercises from the textbook. Students build their vocabulary by learning new words and learning to determine the meaning of words from context clues and word analysis. Students work to develop sentence-level writing skills and may begin practice writing simple paragraphs.

526 Intermediate Core Skills (9)

Prereq: perm. Twelve-hour core component of a full time (20 hours/ week) course in English as a second language for students aiming at academic study. Students at this level do not take academic courses. Paragraph level writing competency is developed as students expand grammatical knowledge and explore the process of writing. Instruction and practice includes an introduction to the three-paragraph essay.

527 Intermediate Listening/Speaking (4)
Prereq: perm. This course is one component of full-time study of English as a second language for students at the intermediate level whose ultimate aim is academic study. Four hours of classroom instruction are designed to provide students with instruction and practice in listening and speaking.

S28 Intermedieate Reading/Vocabulary (4)
Prereq: perm. This course is one component of full time study of English as a second language for students at the intermediate level whose ultimate aim is academic study. Four hours of classroom instruction are designed to provide students with instruction and practice in reading and vocabulary. Students build their reading skills by learning reading strategies and practicing with readings and exercises from the textbook. Students build their vocabulary by learning new words and learning to determine the meaning of words from context clues and word analysis. This course includes instruction and practice in using an English-only dictionary.

531 Advanced Core Skills A (9)

Prereq: perm. The Advanced CORE Skills A is a 12-hour CORE component of a full time (20 hours/week) course of study in English as a second language for students preparing for academic study in an American university. Students incorporate understanding of grammatical structures, appropriate vocabulary, and organization into formally developed essays. More emphasis is placed on rhetorical modes and developing editing skills. Reading comprehension and lexical skill development is emphasized along with the improvement of reading rate. Students learn to synthesize the various skills and strategies to which they have been exposed. Listening and speaking skill activities rely more heavily on academic task simulations and university level expectations.

532 Advanced Core Skills B (9) Prereg: perm. The Advanced CORE Skills B is a 12-hour CORE component of a full time (20 hours/week) course of study in English as a second language for students preparing for academic study in an American university. Students incorporate understanding of grammatical structures, appropriate vocabulary, and organization into formally developed essays. More emphasis is placed on rhetorical modes and developing editing skills. Reading comprehension and lexical skill development is emphasized along with the improvement of reading rate. Students learn to synthesize the various skills and strategies to which they have been exposed. Listening and speaking skill activities rely more heavily on academic task simulations and university level expectations.

#### 533 Academic Listening/Note-taking/ Speaking (4)

Prereq: perm. This OPIE part time level elective class aims to improve students' listening, note-taking, and speaking skills needed for successful academic work. Class time is spent on listening to academic mini-lectures, note-taking, discussions, and oral presentations.

534 Academic Reading Skills (4)
Prereq: perm. Provides students with both an understanding of the reading process and intensive practice in developing advanced level reading strategies and skills. Designed to improve reading comprehension, reading speed, academic vocabulary, and awareness of text structures and rhetorical patterns.

#### 541 American Culture (4)

Prereq: perm. A general overview of American culture to increase awareness and understanding of the cultural values of the United States and other cultures. Provides cross-cultural activities for small group and class discussions, and topics for oral presentations, research, and writing projects. Academic English skill building through reading, writing, listening and speaking activities, vocabulary study, summarizing, research and oral reports, and group activities.

#### S42 Stories in the News (4)

Prereq: perm. Students in this four-hour per week course will work to improve reading, writing, listening, and speaking skills while they study and report on a) current news stories and b) contemporary world issues.

S43 U.S. Cities: New York and Los Angeles (4) Prereq: perm. Through instruction in the history and cultural geography of two U.S. cities: New York City and Los Angeles, students improve their academic English language skills in grammar, reading, writing, listening, and speaking. Students practice language skills through discussion, oral presentations, written assignments, journal and essay writing, and completing reading logs. Students also learn and develop research skills by accessing and gathering information from a variety of sources.

#### 544 Native Americans of the U.S. (4)

Prereq: perm. This course will help students further develop all English language skills while learning about Native American history, culture, and current social and political issues. Students will gather information from a variety of sources including newspaper and magazine articles, the internet, videotapes, guest speakers, and field trips; they will use this information in discussions, presentations and papers.

546 Ecology and the Environment (4)
Prereq: perm. This course will help students
further develop all language skills as well as
learn about local ecology and worldwide
environmental issues. Students will gather
information from a variety of sources including
newspaper and magazine articles, the internet,
videotapes, guest speakers, and field trips; they
will use this information in discussions,
presentations and pagers.

#### 547 English through Music (4)

Prereq: perm. This course is one component of either full time or part time study of English as a second language for students whose ultimate aim is full time academic study. Four hours of classroom instruction are designed to provide students with instruction and practice in listening/speaking and reading while exploring American musical genres and American culture.

#### 551 Academic Core 5kills 1 (8)

Prereq: perm. Academic Core Skills 1 is a part time integrated core in English as a Second Language for students who are also permitted to take one academic course. Eight hours of classroom instruction (two hours a day, four days a week) focus on the development of academic English language skills including reading and writing, study skills, and academic performance skills needed for success in an academic program in the US. Listening and speaking will also be addressed, and grammar will be addressed as needed.

#### S52 Americans at Work (4)

Prereq: perm. This course focuses on improving students' academic reading, composition, and presentation skills by introducing them to work as a cultural phenomenon, to the history of work in the U.S., and to American cultural values and beliefs about work.

#### 5S3 Adventures in Mythology (4)

Prereq: perm. Students in this course will work on improving their academic reading, writing, listening and speaking skills through simulated academic study of mythology.

#### 554 Public Speaking (4)

Prereq: perm. The Public Speaking Class develops speaking, listening and presenting skills through discussion, demonstration and extensive practice. This course is useful for both academic work and the workplace.

#### SS6 Academic Core Skills 2 (8)

Prereq: perm. Academic Core Skills 2 is a part time level integrated core in English as a Second Language for students who are also permitted to take one or two academic courses simultaneously. Eight hours of classroom instruction (two hours a day, four days a week) are designed to provide students with high-level language skills development, with a specific focus on academic reading and writing skills, as well as academic performance and study skills. Students also work on academic listening and speaking skills.

557 Pronunciation through Current Events (4) Prereq: perm. This course will focus on improving the accuracy of students' speaking abilities. Students will have the opportunity to learn and practice the individual sounds, rhythm, intonation and stress associated with spontaneous and planned spoken English. In addition students will study current issues through the use of news related listening materials and class discussions. These discussions of current events will provide the primary means for student improvement by enabling students to practice speaking in a relevant and engaging context.

#### 558 College Vocabulary (4)

Prereq: perm. This course is designed to engage students in improving their vocabulary and using it accurately and fluently for academic purposes.

#### 561 Academic Core Skills 3 (8)

Prereq: perm. This course is a part time support course(s) in English as a Second Language for students who are also permitted to take two academic courses. Eight hours of classroom instruction (two hours a day, four days a week) are designed to provide students with high-level language skills development, with a specific focus on academic reading and writing skills, as well as academic performance and study skills.

#### 562 Intercultural Communication (4)

Prereq: perm. This course focuses on improving students' academic reading, composition, and presentation skills by introducing them to the fundamental concepts of intercultural and interpersonal communication and the problems of intercultural conflict.

#### S64 Grammar (4)

Prereq: perm. Through this OPIE part time level elective class, students will increase their ability to use a variety of grammatical patterns and structures to express original ideas, to edit written text and to paraphrase, summarize, and synthesize information and ideas in order to perform extended academic tasks orally and in writing.

#### 565 Composition (4)

Prereq: perm. Through this OPIE part time level elective class, students will increase their ability to write about familiar or prepared topics (up to three typed pages) with some precision and sufficient support. They will increase their ability to synthesize, summarize and paraphrase information from articles and academic texts. Students will perform various academic writing tasks such as writing persuasive essays and integrating paraphrased or summarized sources into a text. They will increase their ability to use a variety of grammatical patterns and structures to express original ideas in writing.

#### 566 Issues through Film (4)

Prereq: perm. Students in this five session per week course (ordinarily six hours of class) will work to improve speaking, reading, and writing as well as listening skills through a study of some of the traditional themes of USA cinema, and of movies that exemplify those themes.

#### 567 Information Gathering (4)

Prereq: perm. This OPIE part time level elective class on Information Gathering (Techniques for Gathering and Evaluating Research Information) aims at providing international students with basic and, in some cases, advanced level information gathering and evaluation skills while at the same time improving their English language ability, particularly in the areas of reading, listening/ speaking, and classroom interaction skills.

573 Introduction to Graduate Writing (3) Prereq: perm. This required course is for graduate students whose first language is not English and whose writing assessment reveals serious weakness in acceptable standard English for academic purposes. This course addresses critical reading and written communication of information for academic purposes—from the paragraph to the research paper. Grammatical and vocabulary issues are also addressed.

#### 574 Advanced Graduate Writing (3)

Prereq: perm. For graduate students whose first language is not English, this course addresses how to organize and present written information in acceptable academic English. Students practice discourse skills that include but are not limited to word choice clarity, emphasis and subtleties of expression. Coherence in writing will be emphasized. Practice in the critical discourse modes of graduate writing and editing are addressed.

#### 575 Writing a Thesis (3)

Prereq: perm. Given the understanding that language and writing are cultural phenomena, this course is designed for international students who have mastered content of a discipline but are unfamiliar with the constraints of writing a proposal or writing up the results of the extended research for a thesis.

#### S80 ITA Preparation (Pronunciation Emphasis) (4)

Prereq: perm. The major emphasis in this course is on improving pronunciation for overall intelligibility and for comprehension in the classroom, although some attention will also be given to teaching skills and cultural awareness.

# 581 ITA Preparation (Classroom Communication 5kills) (4)

Prereq: perm. The major emphasis in this class is on developing the language skills necessary for effective teaching, which include fluency, use of discourse markers, and the structural control needed for defining and explaining. In addition, considerable attention will also be given to the language necessary for effective interaction with undergraduate students, to meeting the pronunciation needs of both the class as a whole and the individual student and to the awareness of expectations for TAs and the academic situation in the United States generally.

# 582 Oral Communication in Graduate Studies (3)

Prereq: perm. The goal of this course is to improve students' oral communication skills in English for success in the US academic community. Students explore aspects of language, the US academic culture, and strategies for effective discussion and presentation. Students will have the opportunity to learn and practice the individual sounds, rhythm, intonation and stress associated with spontaneous and planned spoken English.

#### 583 Oral Communication in Graduate Studies 2 (3)

Prereq: perm. The goal of this course is to further improve students' oral communication skills in English for success in the US academic community. Students continue to explore aspects of language, the US academic culture, and strategies for effective discussion and presentation. Students will have the opportunity to learn and practice the individual sounds, rhythm, intonation and stress associated with spontaneous and planned spoken English.

599 Special Studies (1-15)

Prereq: perm. Individual or small group independent or tutorial study classes set up to meet the needs of students unable to participate in standard classes. Content and objectives taken from standard classes but adapted to the individual or small group independent or tutorial method of delivery.

#### **Philosophy**

http://www.philosophy.ohiou.edu/

Only students who have earned at least a 3.0 (B) average in their undergraduate courses will be admitted unconditionally into the graduate program in philosophy. It is expected that you will have taken at least 28 quarter hours in philosophy. Students who have not had a course each in value theory, symbolic (predicate) logic, ancient philosophy, and modern philosophy must take courses in these areas during the first two quarters in residence or as soon as possible. Applications, along with official transcripts and GRE scores, should be submitted to Graduate Studies. At least three letters of reference as well as a sample of original philosophical writing should be sent directly to the department graduate chair. All application materials must be received by March 1 for fall admission.

The Master of Arts in philosophy is granted upon the satisfaction of the following requirements:

- 1 Completion of 45 quarter hours in addition to any course taken to compensate for deficiencies in undergraduate preparation. At least 35 of these hours must derive from classroom courses at the 500-level or above. Independent or arranged studies such as PHIL 692 and PHIL 694, as well as PHIL 685, 690, and 693, do not count toward the 35 course hours. These hours must include at least one course from each of the following groups:
- a 518 Plato, 519 Aristotle;
- **b** 528 Continental Rationalism, 529 British Empiricism, 538 Kant
- c 514 Analytic Philosophy, 544 Philosophy of Marxism, 548 Pragmatism, 558 Contemporary European Philosophy, 568 Phenomenology

- **d** 530 Contemporary Ethical Theory, 531 History of Aesthetic Theory,
- 532 Problems in Aesthetics,
- 540 Contemporary Social Theory,
- 542 Philosophy of Law
- e 516 Philosophy of Science, 517 Philosophy of Logic, 520 Symbolic Logic II, 550 Theory of Knowledge, 551 Metaphysics
- f 502 Techniques in Formal Analysis
- **2** Enrollment in 693 Seminar each fall and spring, and 685 Forum each winter in residence.
- **3** Enrollment (especially in the second year) in a suitable number of hours of 695 Thesis.
- 4 Submission of an acceptable thesis on an approved topic, and an acceptable defense of it during an oral thesis examination. During a student's six-year term of admission, he or she may attempt a thesis defense no more than twice. If the second attempt is unsuccessful, the Graduate Committee will meet to decide whether to terminate the student from the program.

#### Policy Regarding Adequate Progress Toward the Degree

Graduate students are expected to make continuous and adequate progress toward the degree. Progress is defined as:

- **1** Enrolling in appropriate philosophy graduate courses (15 hours per quarter).
- 2 Maintaining a 3.0 G.P.A.
- 3 Avoiding grades of "I"
- **4** Avoiding any more than two grades of "PR."
- **5** Arranging for a thesis advisor and a committee of two other readers by the end of fall quarter of the student's second year.
- **6** Submitting a thesis proposal by the end of the first week of winter quarter of the student's second year.
- **7** Evidence of regular progress in completing the thesis (e.g., the submitting of drafts, frequent meetings with thesis advisor, etc).

Failure to satisfy any of these conditions can result in dismissal from the program.

#### Philosophy Courses (PHIL)

**502 Techniques of Formal Analysis (5)** Philosophical application of techniques of modern symbolic logic. *F, W, Sp; Y.* 

510 Emergence of a Science (4)

Prereq: 1 yr univ-level science. For both science and nonscience majors interested in historical and philosophical influences that led to present concept of chemistry as science. Chronological survey, largely nontechnical, of developments in chemistry from antiquity to present, combined with discussions of philosophers of science from Thales to Russell. *Zucker; Y.* 

512 Philosophy of Biology (5)

Some specific questions to be addressed include: what are species; how best to do taxonomy; must any theory of evolution be holistic? *Zucker, A.* 

- 513 Philosophy and Freudian Analysis (5) Prereq: PSY 233 or 332. The philosophical and scientific presuppositions of Freudian psychology, including Freud's methodology, are identified and subjected to rigorous philosophical analysis. Freud's early thought on hysteria, dreams, sexuality, and psychoanalysis are emphasized. Recent attacks on the legitimacy of psychoanalysis are examined. Alternative schemes for understanding human behavior also discussed. *Zucker: D.*
- 514 Analytic Philosophy (5) Selected topics in contemporary Anglo-American philosophy. *Bender; D.*
- 516 Philosophy of Science (5)
  Analysis of selected problems in logic and methodology of sciences. Zucker; Y.
- 517 Philosophy of Logic (5)
  Prereq: 320 or 502. Provides a survey of issues in the philosophy of logic. Topics include formal theories of truth, logical and semantical paradoxes, modal logic, conditionals, interpretations of quantifiers, and philosophical implications of Godel's incompleteness theorem.

518 Plato (5) Carson; Y.

519 Aristotle (5) Carson; Y.

520 Symbolic Logic II (5)

Prereq: 320 or 502 or Math 306 (or equiv.) or CS 300. Focuses on the completeness of first-order logic, Gödel's incompleteness theorems, axiomatic set theory, and Cantor's and Dedekind's theories of the infinite.

525 Philosophical Problems in Quantum Physics (5)

Interpretation and paradoxes of quantum theory. Topics include the problem of measurement, the Bohr-Einstein debates, Schrodinger's cat paradox, the Einstein-Podolsky-Rosen paradox, and Bell's Theorem and its implications.

- 526 Philosophy of Space and Time (5) In addition to classical topics, issues in the philosophy of space and time that have been greatly influenced by the emergence of Einstein's theory of relativity will be discussed. Topics to be covered include the nature of geometry and its relation to the world, absolute vs. relational theories of space, time, and space-time, and Zeno's paradoxes of motion and extension. Contemporary and classical thinkers will be examined.
- 527 Philosophy of Mathematics (5)
  An in-depth examination of a major work in the philosophy of mathematics or of a particular concept that plays a central role in mathematical philosophy, such as the concept of number, the concept of mathematical proof, and the concept of the mathematical infinite.

- 528 Continental Rationalism (5)
  Descartes, Spinoza, Leibniz. Petrik; A.
- 529 British Empiricism (5) Locke, Berkeley, Hume. A.
- **530** Contemporary Ethical Theory **(5)**Current literature in selected topics in moral and social philosophy. *LeBar; A.*
- 531 History of Aesthetic Theory (5)
  Readings from Plato to Dewey and relation of these theories to selected arts and recent criticism. Bender; Y.
- 532 Problems in Aesthetics (5)
  Writing drawn from modern sources on theory of art, aesthetic criticism, interpretation, creativity, truth in art, and aesthetic value.

  Bender; Y.
- 534 Metaethics (5)
  This course will focus on the nature of ethical judgments and claims, their truth status, and their connection with motivation. *Lebar; A.*
- 538 Kant (5)
  Kant's Critique of Pure Reason with attention given to his ethical theory. Petrik: A.
- 540 Contemporary Social Philosophy (5)
  Consideration of any number of various issues in contemporary social, political, and legal philosophy. Possible topics: theories of distributive justice, culpability, causality and responsibility, legal and moral rights. D
- 542 Philosophy of Law (5)
  Consideration of nature and justification of law and examination of some specialized topics in philosophy of law including ascription of responsibility, civil disobedience, theories of punishment, liberty, etc. Y.
- 543 Liability and Responsibility in the Law (5) Prereq: 240, 330, 430, or 440. Study of some of major problematic areas in ascription of legal liability and responsibility. Chief areas of concern: (1) grounds on which courts determine who or what is causally responsible for what occurred; (2) extent to which finding of legal responsibility should take account of intentions, knowledge, recklessness, etc., of accused; and (3) whether only sane individuals should be held legally responsible. Y.
- 544 Philosophy of Marxism (5)
  Philosophical inquiry into classical and
  contemporary Marxist thought stressing Marx,
  Engels, Lenin, Stalin, Mao, and several
  contemporary Marxists such as the "Praxis
  group" of Yugoslavia. Borchert; A.
- **548** Pragmatism (5)
  Peirce, James, Dewey, and other American thinkers. *D.*
- **550** Theory of Knowledge (5)
  Critical examination of various views of what knowledge is and how it is attained. *Bender; Y.*
- 551 Metaphysics (5)
  Basic alternative conceptions of world and such topics as substance, causality, self, freedom, space, and time. Bender: Y.
- 553 Philosophy, Science, and World Views (5) Transformation of ideas from one discipline to another, especially from philosophy to science and from science to generalized world-view. Emphasis on two case studies on moral and social views derived from Newtonian mechanism and Darwin's theory of evolution, with applications to recent religious and metaphysical implications drawn from new physics of Einstein and Heisenberg. D.

- 554 Semiotics in Communication (5) Introduction to the structures and processes of communication through the use of semiotics. Semiotics is concerned with systems of signs, their interrelationships, and the images used to transmit such systems. Since semiotics is being used widely in the analysis of literature, film, and other social means of communication, the course would acquaint the student with current modes of understanding the communicative process. Mickunas; Y.
- 558 Contemporary European Philosophy (5) Phenomenology and existentialism as seen in Husserl, Heidegger, Scheler, Hartman, Dilthey, Cassirer, Gebser, Ingarden, Sartre, Camus, Marcel, Merleau-Ponty, and Ricoeur. Mickunas; Y.
- 568 Phenomenology (5)
  Method and philosophy of phenomenological movement from Husserl to Merleau-Ponty. *Mickunas; Y.*
- **575** Chinese Philosophy **(5)** Major Chinese philosophers and schools of thought from earliest times to present day. *D.*
- 576 Indian Philosophy (5) Classical Hinduism. *D*.
- **577 Buddhist Philosophy (5)** Abhidharmika, Madhyamika, Yogacara, Zen, and other philosophical doctrines of Buddhism. *D*.
- 578 African Philosophy (5)
  Critical examination of question, debated today among African philosophers, whether traditional African thought systems should be regarded and developed as philosophical systems, and survey of most significant of these thought systems.

  Blacker: Y.
- 591 Seminar in Philosophy (1–15, max 15) Prereq: perm. Selected problems.
- 592 Applied Ethics (5)
  Prereq: 2 courses from 130, 235, 330, 331, 430.
  An examination of the relationship of applied ethics to ethics as a branch of philosophy, as well as a survey of the major areas within applied ethics (medical, business, journalistic, etc.), and a consideration of selected problems in each. Y.
- 685 Forum in Contemporary Philosophy (3) Seminar required of all full-time graduate students to study the book to be discussed with the author during the spring quarter Philosophy Forum.W: Y.
- **690 Supervised Teaching (2)** Supervised experience, including observation, discussion, and counsel. *Y.*
- 691 Seminar in Philosophy (1–5, max 15) Selected problems. D.
- 692 Special Studies (1-5, max 15) Advanced specialized study in an area related to, but not necessarily that of, student's thesis. Y.
- **693** Seminar in Philosophy (1–3, max 6) Seminar intended for all graduate students. *F,* Y.
- 694 Advanced Readings (1–15)
  Supervised readings in specific areas beyond coursework. *D.*
- 695 Thesis (1–15, no maximum)
- 696 Topics in Applied Ethics (5)
  A seminar on selected topics in the area of applied ethics (medicine, journalism, computer, etc.). Each student writes a paper on the resolution of one such problem area. Y.

#### **Physics and Astronomy**

http://plato.phy.ohiou.edu/

#### **Degree Programs**

Graduate study and research leading to the Master of Arts, Master of Science, and the Doctor of Philosophy degrees are offered in the Department of Physics and Astronomy. The research activities of the department are broad and currently include nuclear and particle physics, condensed matter and surface physics, acoustics, biophysics and astrophysics. Both experimental and theoretical studies are in progress in these areas. Interdisciplinary and inter-departmental programs of study are also possible.

#### **Expected Student Preparation**

Students entering these degree programs are normally expected to have successfully concluded undergraduate work in mechanics, electricity and magnetism, thermodynamics, statistical mechanics and quantum mechanics, and should also possess a working knowledge of mathematics including calculus, ordinary differential equations, Fourier series, vector analysis, and the elements of partial differential equations. It is recommended that applicants take the Graduate Record Examination, including the advanced test for physics. Deficiencies of undergraduate preparation should not deter a prospective student with an otherwise good record, as these may be made up during the first year of graduate study.

#### **Degree Requirements**

#### **General Requirements**

Participation in the weekly colloquium, PHYS 891, is required of all graduate students. Participation in one of the area-specific seminar series and in special topics course offerings is encouraged.

# Requirements for the M.S. and M.A. Degree

The M.S. degree can be earned by submission of a research thesis with an oral examination and at least 20 credit hours of graduate level lecture or

laboratory courses in physics and astronomy. It can also be obtained under a non-thesis option which requires satisfactory completion of a faculty-approved project (of two to six credits), and must include a core set of courses consisting of one quarter of Classical Mechanics (605), two guarters of Electrodynamics (607 and 608), two guarters of Quantum Mechanics (611 and 612), one quarter of Mathematical Methods (615), and one quarter of Statistical Mechanics (623), or their equivalents. The M.A. is an option reserved for special cases and usually involves substantial work in other fields. Candidates must follow an approved program filed with the Departmental Graduate Committee and submit a scholarly paper based on these studies for approval by at least two readers. For either the M.A. or M.S. degree, a candidate is required to earn at least 45 graduate credits in physics, astronomy, and approved electives.

#### Requirements for the Ph.D. Degree

#### **Course Requirements**

Students in pursuit of a Ph.D.in physics are required to pass the core set of courses (PHYS 605, 607, 608, 611, 612, 615, and 623 described in the previous section) with a B (3.0) average. First and second year graduate students consult with assigned advisors to determine a program of study. Course requirements may be waived with adequate evidence of equivalent work elsewhere. In addition to the core courses, Ph.D. students must take a graduate level laboratory course (A5TR 510, PHYS 531, 601, 604) and seven of the following courses: ASTR 501, 502, 503, PHYS 520, S23, S53, S71, and noncore courses numbered 600 and higher. Research courses PHY5 696 and 895 are excluded from this list. At least one of the seven courses must be in an area. outside the student's area of specialization. Courses or Labs offered by other departments may substitute for a limited number of these requirements with the approval of the student's advisor and the Graduate Chair. Typically a student would take courses in the following order:

First Year:

Fall: (551 QM), 607 ED, 615 MM Winter: 611 QM, 608 ED, (512 5t M) 5pring: 612 QM, LAB, 605 Cl M Second Year: Fall: 623 5t M, AR, AR Winter: AR, AR, AR Spring: AR, AR

AR in the above listing indicates one of the seven courses from the list in the preceding paragraph. Students requiring additional preparation in statistical mechanics or quantum mechanics are advised to take PHYS 512 or PHYS 551; however, these courses do not count toward the seven required courses.

Ph.D. Comprehensive Examination A written exam is given at the beginning of both the fall and winter guarters to students who have attended a full year of graduate study at Ohio University. The exam is based on undergraduate physics, and first-year graduate-level topics taken from the areas of: classical mechanics, electricity and magnetism, quantum physics, thermodynamics, special relativity, and mathematical physics. Well-prepared incoming students may choose to take the exam in their first year at the beginning of the first winter quarter. An unsuccessful attempt in the first year will not adversely affect the student's record. At the beginning of the fall quarter of the second year, all students must take the exam if they have not already passed it. If a student is admitted in the winter or spring quarter of a given year, they must take the exam the first time it is offered after the student has been enrolled in the graduate program for one full year. Three outcomes are possible for the written exam. The student may pass the exam, in which case the requirement of the Comprehensive Exam is successfully concluded. The student may fail the written exam, in which case the student is required to take the exam the next time it is offered (normally only one additional attempt is allowed after the first required attempt). In some cases, the faculty may feel that the results of the written exam are ambiguous, and require an oral exam to decide if the student passes or fails the Comprehensive Exam. The oral exam will consist of general questions at the

first-year graduate level and possibly

those related to the student's proposed

area of study. Based upon performance

on the oral exam, the committee makes

a recommendation to the faculty, which decides whether the student passes or fails the Comprehensive Exam.

#### **Dissertation Prospectus**

After passing the Comprehensive Exam, students form a Dissertation Committee in consultation with their research advisor. Students must prepare a Dissertation Prospectus for approval by this committee within one year of passing the Comprehensive Exam. The Prospectus is a written document, typically 5-10 pages in length, prepared in consultation with the research advisor, which outlines the student's plan for their dissertation research. Approval of the Prospectus by the Dissertation Committee will occur after the student meets privately with the committee and has answered any questions or concerns the committee may have about the proposed research. If the plans for the student's Dissertation change substantially from the Prospectus, the student's Dissertation Committee must be informed. The Graduate Chair may convene the Dissertation Committee for advice should problems arise.

#### Dissertation Defense

The remainder of the Ph.D. program consists of research, advanced coursework, and other studies relevant to the Dissertation. Upon completion of the Dissertation, the student gives a public presentation of the findings. The Ph.D. is awarded following the successful defense of the Dissertation before the Dissertation Committee.

There are no specific deadlines, but most applications for financial aid are received by March 1 and most offers are made by April 15. Most students enter the physics program in the fall; although some add the preceding summer session. Entry during the academic year is possible although not generally encouraged. For all details concerning graduate programs, write to the Physics Graduate Committee.

#### **Astrophysics Graduate Study**

Students interested in pursuing advanced study and research in astrophysics at Ohio University must fulfill general physics course

requirements specified by the department, and are encouraged to complete additional coursework providing a solid background in contemporary astrophysics. A suggested course sequence for the first two years is provided below for students interested in pursuing this option.

#### First Year:

Fall: (551 QM), 607 ED, 615 MM Winter: 611 QM, 608 ED, 512 St M Spring: 612 QM, Astro Lab, 605 Cl Mech

#### Second Year:

Fall: 623 St M, 650 G Rei<sup>1</sup>, 501 Stellar Astro<sup>4</sup> Winter: 617 M<sup>1</sup>, 696 Spec Study<sup>3</sup> **5pring:** 553 or 571<sup>2</sup>,609 ED<sup>1</sup>, 502 Gala and ISM<sup>4</sup>

#### Notes:

<sup>1</sup>Recommended electives. (617 = Methods of Theoretical Physics, 650 = General Relativity)

<sup>2</sup>All graduate students are expected to complete either 553 (Nuclear and Particle Physics) or 571 (Solid State Physics).

<sup>3</sup>May include material covered in ASTR 305.

4S01 (Stellar Astrophysics), 502 (Galactic and Interstellar Astrophysics), 503 (Extragalactic Astrophysics and Cosmology), and 510 (Observational Astrophysics) are offered on a rotating basis in the winter and spring quarters; consequently most students will need to take one of these courses in the Fall quarter of their third year.

SThe Colloquium (891) must be attended by all students.

Students should also plan on participating in PHYS 897F, Astrophysics Research Seminar.

The detailed course of study and choice of electives may be adjusted, based on the student's level of background and interests. Students wishing to pursue the astrophysics option should meet with Profs. Böttcher, Mcnamara, Shields, or Statler for further information and discussion of research possibilities.

#### Astronomy Courses (ASTR)

#### 501 Stellar Astrophysics (3)

The physics of stellar atmospheres and interiors. Mathematical treatments of radiative transfer, hydrodynamics, and stellar structure; stellar atmospheres and spectra; stellar interiors; and nuclear energy sources. Stellar evolution, red giant stars, pulsating variables; physics of degenerate gases, white dwarfs, neutron stars, pulsars, black holes.

502 Galactic and Interstellar Astrophysics (3) Structure and evolution of the MIlky Way galaxy and the interstellar medium. Stellar populations and orbits of stars in the galaxy; galactic dynamics, evolution of the galactic disk and star clusters. Physics of the interstellar gas, absorption and emission processes, HI and HII regions, molecular clouds. Hydrodynamic instabilities, star formation; supernova explosions and shockwaves.

## 503 Extragalactic Astrophysics and Cosmology (3)

Physics of galaxies and evolution of the universe. Dynamics of galaxy structure, formation, and interaction. Dark matter. Active galactic nuclei, radio galaxies, and quasars. Galaxy clusters and large-scale structure. Cosmological distance measurements, expansion of the universe. Introduction to general relativity; cosmological models, observational tests, cosmic microwave background. Primordial nucleosynthesis.

510 Observational Astrophysics (3)
Modern observational techniques and instrumentation. Planning and execution of observational programs, data aquisition, reduction, and analysis; presentation of scientific results.

#### **Physics Courses (PHYS)**

503 Digital Computing Methods in Physics (5) Practical computer programming (FORTRAN, etc.) with special emphasis on problems in physics.

#### 505 Mechanics (3~5)

Prereq: degree in area outside physics. For students with graduate rank, especially in multidisciplinary programs, whose preparation does not include equiv of 311.

#### 506 Mechanics (3-5)

Prereq: degree in area outside physics. For students with graduate rank, especially in multidisciplinary programs, whose preparation does not include equiv of 312.

507 Electricity and Magnetism I (3-5)
Prereq: degree in area outside physics. For
students with graduate rank, especially in
multidisciplinary programs, whose preparation
does not include equiv of 427.

508 Electricity and Magnetism II (3–5)
Prereq: degree in area outside physics. For students with graduate rank, especially in multidisciplinary programs, whose preparation does not include equiv of 428.

509 Electricity and Magnetism III (3–5)
Prereq: degree in area outside physics. For students with graduate rank, especially in multidisciplinary programs, whose preparation does not include equiv of 429.

#### 511 Thermodynamics (4)

First and second laws of thermodynamics, phase changes, and entropy. Temperature, thermodynamic variables, equations of state, heat engines. 3 lec, 1 rec, problems.

512 Kinetic Theory and Statistical Mechanics (4) Kinetic theory, transport phenomena, and introduction to classical and quantum statistics. 3 lec, 1 rec, problems.

514 Dynamic Meteorology I (5)

Prereq: perm., no credit if 513. Basic conservation laws, elementary fluid dynamics, circulation and vorticity. Mathematics related to coordinate systems related to meteorology. Thermodynamics of the atmosphere.

515 Dynamic Meteorology II (5)

Prereq: 514. Continuation of 514. Energy balance in the atmosphere, thermal physics of the atmosphere. Synoptic scale motions, atmospheric oscillations, numerical methods. Special topics in dynamical meteorology.

#### 520 Acoustics (3)

Vibration, sound radiation, sound propagation, and practical aspects of sound. 3 lec. A-odd.

523 Geometrical and Physical Optics (4) Reflection, refraction, lenses, polarization,

birefringence, interference, diffraction, coherence, and selected introductory topics in modern optics. 4 lec, problems.

#### 529 Topics in Science for Elementary and 5econdary 5chools (1–5)

Selected topics related to the teaching of natural science in grades K–12. May be repeated for credit. May not be used for credit toward a physics decree.

#### 531 Electronics Laboratory (3)

Experiments in electronic measurement techniques from simple AC and digital circuits to microprocessors and analyzers. 6 lab.

#### 551 Quantum Physics (4)

Classical background, observables and operators, representations, symmetry and conservation laws, one- and two-dimensional problems, philosophical issues, quantum paradoxes. 4 lec, problems.

#### SS3 Nuclear and Particle Physics (4)

Descriptive treatment of nuclear phenomena. Elementary theory of nucleon-nucleon interaction. Systematics of nuclear structure (shell model and collective model). Properties and interactions of fundamental particles. Devices and techniques of nuclear and high energy physics. 3 lec, problems.

#### 571 Solid State Physics (4)

Fundamental properties of solid state of matter. 3 lec, problems.

#### 601 Graduate Laboratory (1-4)

Selected experiments from condensed matter and surface physics requiring accurate measurements with refined apparatus.

#### 604 Experimental Techniques (1–5)

Introduction to experimental techniques of physics including experiments of particular focus.

#### 605 Classical Mechanics (5)

Basic analytical techniques for point mass systems and rigid bodies in traditional and contemporary perspective; mathematical complements. 3 lec, intensive problems.

#### 606 Classical Mechanics (5)

Continuation of 605. See 60S for description. 3 lec, intensive problems.

#### 607 Electrodynamics (S)

Deductive development from Maxwell's equations, including recent advances; special theory of relativity and applications to charged particle problems; mathematical complements. 3 lec, intensive problems.

#### 608 Electrodynamics (5)

Continuation of 607. See 607 for description. 3 lec, intensive problems.

#### 609 Electrodynamics (5)

Continuation of 607-608. See 607 for description. 3 lec, intensive problems.

#### 611 Quantum Mechanics (5)

Brief review of Schroedinger equation; elements of scattering theory, phase shift analysis, and Born approximation; operators, matrices, angular momentum, and spin; basic semi-classical, perturbation, and variational techniques; exchange and symmetry effects; atomic spectra and electromagnetic transitions; diverse applications; introduction to second quantization; mathematical complements. 3 lec, intensive problems.

#### 612 Quantum Mechanics (5)

Continuation of 611. See 611 for description. 3 lec, intensive problems.

**613** Mathematical Physics Practicum (2) Selected mathematical techniques important to physicists.

- 615 Mathematical Methods in Physics (5)
  Contemporary and classical mathematics to
  complement basic graduate courses, particularly
  series, series solutions of differential equations,
  Fourier series and integral transformations,
  complex variables, and special functions. 3 lec,
  intensive problems.
- 616 Mathematical Methods in Physics (S) Continuation of 61S, See 615 for description. 3 lec, intensive problems.
- 617 Methods of Theoretical Physics (S) Selected advanced mathematical and computational methods employed in theoretical physics.
- 623 Statistical Mechanics (S)

Review of ensembles, noninteracting classical, Fermi, and Bose systems, theory of phase transitions, and introduction to renormalization group methods, Monte Carlo techniques, classical theory of fluids, and a brief introduction to nonequilibrium statistical mechanics. 4 lec, intensive problems.

650 General Relativity (S)

Introduction to general relativity, Einstein's field equations, gravitational waves, singular solutions, elements of relativistic cosmology. 4 lec.

- 695 Thesis (as recommended by dept)
- 696 Special Study (1-15)

Supervised individual study at beginning grad level. Can be used for writing M.S. or M.A. paper.

721 Physical Acoustics (4)

General principles of interactions of sound with matter; thermoacoustics. 3 lec, problems.

726 Particles and Nuclei (4)

Experimental and basic theoretical aspects of elementary particles and nuclei and their interactions. Elements of nuclear structure and nuclear reactions. 3 lec, problems.

727 Particles and Nuclei (4)

Continuation of 726. See 726 for description. 3 lec, problems.

728 Particles and Nuclei (4)

Properties and interactions of subnuclear particles. The static quark model. Experimental basis of the Standard Model of particles and their interactions including electroweak and quantum chromodynamics. 3 lec, problems.

- 731 Condensed Matter Physics (4)
  Structure, dynamics, electronic, thermal,
  transport and materials properties, and collective
  phenomena (magnetism, superconductivity,
  superfluidity, patterning) in bulk and surface
  condensed matter systems. 3 lec, problems.
- 732 Condensed Matter Physics (4) Continuation of 731. See 731 for description. 3 lec, problems.
- 733 Condensed Matter Physics (4) Continuation of 731-732. See 731 for description. 3 lec. problems.
- 735 Relativistic Quantum Theory (4) Relativistic quantum mechanics; Dirac and Klein-Gordon equations; second quantization; diagrammatic techniques; applications. 3 lec, problems. F; Y.
- **736 Quantum Many-Body Theory (4)** Basic techniques of quantum many-body theory; applications. 3 lec, problems.
- 737 Quantum Field Theory (3)
  Basic quantum field theory: quantum electrodynamics, introduction to gauge fields. 3 lec. Sp; A.
- 741 Statistical Mechanics and Thermodynamics (2–4) Selected topics.

742 Statistical Mechanics and Thermodynamics (2–4)

Continuation of 741. See 741 for description.

- 744 Methods in Condensed Matter Theory (3) Selected topics in modern quantum methods applied to condensed matter systems. Examples: density functional, ab initio molecular dynamics, thermal Green functions, Monte Carlo, with applications to superconductivity, liquids, glasses, surface phenomena, etc. 3 lec.
- 751 Particle Theory (3)

Theoretical formulations and current questions regarding nature of, and interactions between, subnuclear particles. 3 lec.

7SS Nuclear Theory (3)

Theory of nuclear reactions and nuclear models. 3 lec.

- 871 Advanced Quantum Theory (3) Selected topics. 3 lec.
- 875 Advanced Nuclear Theory (3)
  Selected topics of current interest. 3 lec.
- 877 Advanced Condensed Matter Theory (3) Selected topics of current interest. 3 lec.
- 891 Colloquium (1)

Selected topics of current interest. Required of all graduate students.

893 Seminar (1-4)

Thorough study of important area. Experimental techniques, classic experiments, and statistical methods discussed.

894 Special Topics (1-4)

Lectures on special topics such as optical physics, continuum mechanics, advanced quantum theory, or other subjects not specified under regular course headings.

- 895 Doctoral Research and Dissertation (as recommended by dept)
- 896 Special Study (1–15)

Supervised individual study in preparation for research.

897 Research Seminar (1-4)

Intensive study of selected subjects by special groups: (A) nuclei and particles, (B) high energy, (C) acoustics, (D) condensed matter and surface science, (E) theoretical, (F) astrophysics.

**899** Problems in College Teaching (1–3) For all graduate students assigned to teaching duties.

#### **Political Science**

http://www.ohio.edu/pols/

The Department of Political Science offers two graduate degrees: the Master of Arts in political science and the Master of Public Administration.

To begin work on either degree, you should have the equivalent of 27 hours of undergraduate work in political science and/or public administration, but applications are also considered from persons with academic backgrounds in closely related areas or with relevant practical experience, especially for admission to the M.P.A. program.

#### Master of Arts

The M.A. program encompasses four subfields of political science: American politics, comparative politics, international relations, and political theory. General requirements are a minimum of 50 quarter hours of graduate work, of which at least half must be in your subfield specialization. In addition, you must complete 600 and either 581 or 582, the required graduate seminars in your subfield specialization, and one seminar outside your subfield specialization.

You may choose either a thesis or a nonthesis option. The requirements for the thesis option include the submission of a master's thesis to a committee of three faculty members and an oral defense of the thesis. The requirements for the non-thesis option include the submission of two approved research papers (starred papers) to a committee of three faculty members as well as a written comprehensive examination. The written examination covers your starred papers and a reading list compiled by your committee. A complete description of requirements for the M.A. is available in the department office.

For admission to the M.A. program, you must submit the application form together with transcripts of previous academic work, three letters of recommendation, and Graduate Record Exam scores. You should plan to begin coursework fall quarter; exceptions are made only with the approval of the graduate chair.

#### Master of Public Administration

The M.P.A. is a specialized, professionally oriented degree. It requires 70 hours of graduate work in public policy and administration, including an administrative internship or practicum. Requirements include the submission of a portfolio to a committee of two public administration faculty members. Detailed program requirements are available in the department office.

To apply to the M.P.A. program, submit the application form together with transcripts of previous academic work, three letters of recommendation, and either Graduate Record Exam or Graduate Management Admissions Test scores. You may begin coursework during any quarter of the academic year, but fall quarter is preferred.

#### Financial Aid

A number of graduate assistantships are available to qualified applicants in both degree programs. Graduate assistants in the M.A. program are normally expected to assist faculty members in the instruction of introductory courses or in their research. Graduate assistants in the M.P.A. program are normally expected to assist the Institute for Local Government Administration and Rural Development, Tuition scholarships are available to all graduate assistants; OGS stipends are available to a limited number of other students in both programs. To seek financial aid for the following academic year, fill out the appropriate section of the application and submit all application materials by February 15.

The Department of Political Science works closely with several interdisciplinary programs, including the Center for International Studies, Contemporary History Institute, Women's Studies Program, Environmental Studies Program, and the Center for Public and Environmental Affairs.

#### Political Science Courses (POLS)

- 501 American Constitutional Law (5) Principles underlying American constitutional government. Consideration of leading cases with reference to interpretation of the U.S. Constitution, Gilliom,
- 502 American Constitutional Law (5) Continuation of 501. See 501 for description.
- 504 Civil Liberties (5)

Examination of selected civil liberties issues such as freedom of expression, freedom of religion, equality, rights of criminally accused, and rights of indigent. Henderson.

505 American Political Parties (5)

American society. Burton.

- Origin, growth, organization, and methods of parties. Suffrage, nominations, and elections. Role of parties in democracy.
- 506 Elections and Campaigns (5) Examines nature of voter and rationality of voter decisions, impact of campaigns and their influence on election outcomes, techniques used in political campaigns, and role of elections in
- 507 Politics of Urban Development (5) Examines the causes and consequences of economic development, the politics and policies in urban America, and the multiple facets of urban development. Randolph.

508 Urban Public Administration (5) Examines administration of urban programs, encounters between urban administration and

program clientele. Focuses on agency-client relationships, professionalism, and public service. Randolph

#### 509 Criminal Procedure (5)

Role, function, and problems of American judicial, prosecutory, policing, and correctional systems in political process. Relationship of law and social organization. Eslocker.

#### 510 Public Policy Analysis (5)

Examines stages of policy process, including policy formulation, implementation, and evaluation. Also discusses development and methods of policy analysis. Mumper, Randolph

- 512 Public Personnel Administration (5) Analysis of philosophy, problems, and procedures of public personnel management. Recruitment, training and promotion policies, position classification, and employer-employee relations.
- 513 Administrative Law (5)

Organization, function, and procedures of selected national regulatory agencies. Principles affecting administrative discretion, administrative power over private rights, enforcement, and judicial control of administrative decisions.

- 514 Organizational Theory and Politics (5) Examination of central role of organizations in public life, presenting major theories of organizations, organizational behavior, and the individual's role in organization. Burnier.
- 515 The American Presidency (5) Analysis of office of national chief executive and its place in American political system; constitutional status and powers, functional development, and interrelationship of person and office. Tadlock
- 518 Interest Groups in American Politics (5) Organization and tactics of pressure groups and their impact on the policy-making process. Burnier.
- Gay and Lesbian Politics (5) Explores emergence and ramifications of gay political activism in Western culture. Changing religious, psychological, legal, and political perceptions of homosexuality examined in historical perspective. Hunt.
- 520 Women, Law, and Politics (5) Focuses on political and legal position of women in U.S. Covers women's legal status, feminist movement, current issues, and public policy responses concerning women's position such as Equal Rights Amendment, marriage and divorce laws, affirmative action, abortion, and pay equity.
- 521 The Politics of Law and Sexuality (5) An exploration of the regulation of sexuality in the U.S. from legal and theoretical perspectives. Cases and other materials will address a variety of issues including the right to privacy, pornography, the right to marry, and gays in the military. Burgess.
- 522 Political Elites and Leaders (5) Exploration of the phenomenon of elites and leadership in global perspective, including contemporary Asia, Africa, and Latin America. Gagliano.
- 524 Intergovernmental Relations in the U.S. (5) Examines intergovernmental fiscal patterns among federal, state, and local governments and impact of fiscal transfers on local budgeting and finance administration. Also includes analysis of nonfiscal patterns such as federal program requirements, their impact on local administrative processes, and other pressures on local budgeting and finance. Burnier.

### 52S Environmental and Natural Resources

Examines history, influence, and tactics of the U.S. environmental movement and the nature of conflict in environmental policy making at the local, state, and national levels. Emphasis on current environmental issues including air pollution. waste disposal, and use of public land. Manring.

#### 526 Politics of the Contemporary Environmental Movement (5)

Examination of the major segments of the contemporary U.S. environmental movement. Topics include the professionalization, activities, strategies, and criticisms of the mainstream environmental groups: radical environmentalism: grassroots environmentalism and the role of gender; environmental justice and the role of race; and the political implications of this diversity. Manring.

- 527 Formulation of American Foreign Policy (5) Examines the domestic basis of United States foreign policy. Assesses how the foreign policymaking system operates within the Constitutional context. Considers the role of various governmental institutions, as well as the influence of public opinion, interest groups, and media in the foreign policy-making process. Molineu.
- 532 Policy Making in Russia (5) Examines how Russian leadership deals with a number of major domestic problems. Williams.
- 533 Russian Foreign Policy (5) Analysis of foreign policies of Russia. Historical, ideological, strategic, and other influences. Williams

#### 534 Government and Politics of Latin America (5)

Political systems of Latin America, Emphasis on power relationships and political obstacles to change in contemporary Latin America. Walker.

- 535 Revolution in Latin America (5) Revolution as theoretical concept and as practical reality in several Latin American countries. Special emphasis on Cuban and Nicaraguan revolutions. Walker.
- 540 The Politics of Developing Areas (5) Major theories and problems of political, sociocultural, and economic development in new nations of Asia, Africa, and Latin America, with special emphasis on heritage of colonialism, struggle for independence, and political adjustments to rapid social and technological change. Abinales.

#### 541 African Politics (5)

Development and structure of modern African states with emphasis on political processes in tropical Africa. Aubrey.

#### 542 Middle East Politics (5)

Major issues and concepts relating to contemporary Middle East politics: the Arab-Israeli conflict, Islamic political movements, Persian Gulf security and oil, and the role of women in Middle Eastern society. Nojeim.

- 545 Government and Politics of Japan (5) Political institutions and processes of Japan with emphasis on developments since 1945. Suzuki.
- 546 Government and Politics of China (5) Political institutions and processes and major political developments in China, with emphasis on recent events.

#### 547A Government and Politics of Southeast Asia (5)

Traditional governments in southeast Asia, Western colonialism, rise of nationalism, achievement of independence. Malley.

#### 5478 Government and Politics of 5outheast Asia (5)

Deals with political developments in states of Southeast Asia in post–WWII period. Sequel to 547A; 547A is not a prerequisite. *Malley*.

#### 555 International Law (5)

International law in interstate relations and in international organization. Kim.

#### 556 International Organization (5)

Nature, development, structure, and function of international organizations, with emphasis on United Nations. *Kim*.

#### 557 National Security (5)

Examines the concepts and problems of attaining international security in an ever-changing world. Provides an overview of traditional and new sources of insecurity and the quest for security in the post-Cold War world. Weitsman.

#### 563 The United States and Africa (5)

Origins and nature of American relations with African states, with emphasis on current American interests and policy. *Aubrey.* 

#### 564 OAU and Africa (5)

An examination of the Organization of African Unity, its actions on various issues of interest to Africa, and the foreign policies of selected African states. The culmination of the course is participation in the annual model OAU meeting in Washington, D.C. Aubrey.

#### 571 Plato, Aristotle, and Premodern Political Thought (5)

Major figures and basic concepts characteristic of political thought in its ancient and medieval periods. Emphasis on original works of Plato, Aristotle, St. Augustine, St. Aquinas, and on developing one's own political values and theories. White.

#### 572 Modern Political Thought (5)

8asic philosophic conceptions of modern nation state. Using original works, evolution of nation state traced through philosophical literature from its Renaissance origins. Attention on both formative and critical perspectives, such as Machiavelli, Rousseau, and Emma Goldman, with emphasis upon evaluation of norms associated with modern state. Henderson, Hunt, White.

## 573 Contemporary Political Thought (5) Nineteenth- and twentieth-century political

theory. Focus on such contemporary philosophical and political issues as emergence of European socialist tradition, origins of human aggression, and human alienation. Attention given to selected theorists such as Marx, Freud, Gandhi, and Sartre. Henderson, Hunt, White.

### 577 Legal Theory and Social Problems (5)

Examination of legal reasoning and normative values of judges, lawyers, legal theorists, and administrative agencies in shaping legal solutions to contemporary social problems. Emphasis on developing one's own political and legal values. Henderson.

#### 578 Feminist Political Theories and Movements (5)

Explores issues of power, powerlessness, oppression, and transcending oppression in the context of feminism as a human rights movement. Topics include origins and history of sexism and feminism, classic treatises of feminist political theory, contemporary theories from conservative to anarchist, visions of post-sexist futures, "her-story" of feminist movements, movement strategies and tactics, practical applications. White.

579 Latin American Political Thought (5) Evolution of Latin American political thought from conquest to present. Major emphasis on 20th century movements such as Democratic Left, progressive Catholic Left, and Marxist Revolutionary Left. Walker.

#### 581 Modern Political Analysis (5)

Problems of knowledge in social sciences, with emphasis on political science. Analysis of recent major theories or approaches in political science. Dabelko, Gordon, Shafie.

## **582** Quantitative Political Analysis (5) Relevance of scientific research techniques to study of politics. *Dabelko, Gordon, Shafie*.

583 Statistical Package for Social Sciences (5) Prereq: 582 or equiv. Use of microcomputers with SPSS/PC+ for statistical data analysis. Fundamental data analysis problems are examined in the context of computer applications to survey, aggregate, and experimental data. Students taking this course cannot receive credit for CS 522 or SOC 550. *Dabelko*.

#### 584 Management 5kills for Public Administrators (5)

Practicum designed to introduce students to several management skills needed for success in public administration and to permit them to apply these skills in a classroom setting. Baum.

#### 586 Public Budgeting (5)

Examines politics, techniques, and policy consequences of public budgeting processes at federal, state, and local levels. Ryu.

#### 587 Financial Management in Government (5) Examines financial aspects of state and local governments. Concentrates on financial reporting, capital budgeting and debt, and investment strategies. *Ryu*.

#### 588 Public Dispute Resolution (5)

An introduction to the field of alternative dispute resolution. The course examines the dynamics and management of public disputes over issues such as the site selection of waste management facilities, prisons, low income housing, the use of natural resources, and the allocation of community financial resources. Students learn how to analyze public disputes, evaluate conflict management approaches, and practice conflict management skills and techniques including conflict assessment, negotiation, and mediation. *Manning*.

#### 589 Nonprofit Management (5)

An introduction to the nonprofit sector and its role in society, the economy, and the delivery of human services. Includes an overview of principle management junctions as each applies to nonprofit organizations. *Miller*.

#### 590 Studies in Political Science (1–5)

Intensive study of special topics, including American government, international relations, comparative politics, political theory, and public administration.

## 591 Research in Political Science (1–5, max 10) Individual supervised research.

592A Research in International Relations (1–5) Individual supervised research or directed readings on selected aspects of international relations based on student's special interest. Kim, Molineu, Weitsman.

# 592B Research in American Politics (1–5) Individual supervised research or directed readings on selected aspects of American government and politics based on student's special interest. Burnier, Dabelko, Gilliom, Mumper, Richard.

592C Research in Comparative Government (1–5) Individual supervised research or directed readings on selected aspects of comparative government and politics based on student's special interest. Aubrey, Suzuki, Walker, Williams.

## **592D** Research in Public Administration (1–5) Individual supervised research or directed readings on selected aspects of public administration based on student's special interest. *Baum, Burnier, Mumper, Randolph, Weinberg.*

## 592E Research in Political Theory (1–5) Individual supervised research or directed readings on selected aspects of political theory based on student's special interest. Henderson, Hunt. White.

### 595 Internship Program (max 15)

600 Scope and Theory in Political Science (5) Aquaints graduate students with the field of political science and is organized around issues in the philosophy of social science. Provides students with the tools to frame research questions within the field of political science and to go about answering them. Mosher.

#### 610 Seminar in American National Government (5)

Selected topics.

#### 620 Public Administration (5)

An examination of the fundamental concepts and issues in the field of public administration.

## 630 Seminar in Comparative Politics (5, max 15) Selected topics.

## 648 Politics of Southeast Asia (5) Analysis of major themes such as bound

Analysis of major themes such as boundary problems, corruption, military, regional cooperation.

## 650 Seminar in International Relations and Organization (5)

Selected topics and theoretical issues.

## 652 Research Seminar in International Relations (5)

Selected topics and theoretical issues for research in International Relations.

#### 670 Seminar in Political Theory (5) Selected topics.

680 Seminar in Public Administration (5)

695 Thesis (1-10)

#### Psychology

http://www/psych.ohiou.edu/

The Department of Psychology offers doctoral programs in clinical and experimental psychology. The clinical program is accredited by the American Psychological Association (APA) and is based on the scientist-practitioner model of training. All doctoral programs offer the master's degree as a step toward the Ph.D. and require a research thesis for the master's degree. For the Ph.D., you must satisfactorily complete a comprehensive examination, a scholarly tool, and a research dissertation. A one-year

internship at an APA-accredited facility is also required for the clinical Ph.D. All doctoral candidates are required to do teaching, professional, or clinical work under supervision, the specific amount to be determined by past experience and needs, but not less than the equivalent of three academic quarters of work.

When you apply for graduate study, you are expected to have completed a minimum of 27 quarter hours of undergraduate psychology, including a course in statistics and one in experimental psychology. You must submit scores on the Graduate Record Examination (including the general test and the subject test in psychology), transcripts of all academic work, three letters of recommendation from psychologists, and a statement of your personal goals and interests. You also must have a minimum overall undergraduate average of 3.0 (on a 4.0 scale). If you apply for the doctoral program with a master's degree from another university, you must have a minimum graduate average of 3.4.

The department strongly encourages you to begin your graduate program in the fall quarter. Application materials must be received by January 15.

#### **Psychology Courses (PSY)**

#### S20 Elementary Statistics (S)

First statistics course for graduate students who have not had such an undergraduate course. (Does not carry degree credit. Not open to students who have had PSY 221.)

525 Elementary Experimental Psychology (5) First course in designing experiments for graduate students who did not have such an undergraduate course. (Does not carry degree credit. Not open to students who have had PSY 226.)

#### 541 Behavioral Measurement (4)

Prereq: 520 or EDRE 720 or equiv. Testing and measurement; basic criteria including objectivity, reliability, validity. Methods of test construction and validation for students who have not had such an undergraduate course. (Does not carry degree credit. Not open to those who have had PSY 341.)

#### 58B Clinical Orientation (1)

Orientation to research, training, and practice issues in clinical psychology for first-year clinical graduate students.

**590** Readings in Psychology (1–5, max 20)
To broaden training of master's or doctoral students in areas in which they need further work that cannot be obtained through specific courses.

S92 Preparing Psychology Papers (2)
Preparation of professional papers in psychology: application of technical style principles to experimental papers and psychological reports.
Tasks include writing and rewriting psychological

information aimed at an informed reader and reviewing psychological writings that illustrate both correct and incorrect psychological style.

## 621 Intermediate Statistics for Behavioral Sciences (S)

Statistical inference and most commonly used tests of hypotheses involving normal curves, t test, chi-square, and F distributions; introduction to probabilistic classification and Bayesian statistics.

- **622** Intermediate Correlation and Regression (4) Prereq: 621. Two-variable correlation and regression, partial and multiple correlation, and nonlinear relationships.
- 623 Design and Analysis of Experiments (S) Prereq: 622 or EDRE 721. Independent groups, repeated measures, and mixed analysis of variance designs. Matching statistical analyses to experimental procedures.
- **626** Advanced Experimental Psychology (3) Prereq: 621. Experimental design and techniques. Individual experiments.
- 633 Psychology of Personality (4)
  Development and organization of personality;
  evaluation of major theoretical viewpoints;
  relationship of personality theories to various
  psychotherapy approaches.
- 637A Clinical Psychopathology (3)
  Survey of theoretical and empirical literature on abnormal behavior. Emphasis on concepts and principles of disorder.
- 637C Psychopathology of Childhood (3) Characteristics, correlates, and etiology of childhood disorders including pervasive developmental disorders, schizophrenia, anxiety disorders, depression, conduct disorder, attention deficit hyperactivity disorder, eating disorders, learning disorders, and mental retardation.

#### 640 Clinical Skills (4)

Supervised practice in clinical skills relevant to assessment interviewing and psychotherapy, differential application of a variety of clinical interventions to meet specific goals of the interview, diagnostic decision making, illustrations of advantages and disadvantages of techniques in context.

641 Individual Intelligence Testing (4)
Prereq: 637A or concurrent. Overview of theories of intelligence and issues relevant to the assessment of intellectual functioning; supervised practice in administration, scoring, and interpretation of selected tests of intelligence for both adults and children; combination of information about cognitive functioning obtained from standardized tests with other information (e.g., interview) in the writing of integrative psychological assessments.

#### 642 Personality Assessment I (4)

Prereq: 633, 637A, 640 or concurrent. Introduction to both objective and projective personality assessment with focus on basics of personality assessment; psychometric properties of tests and criteria for selecting among tests; and practical experience in administration, scoring, and interpretation of test results and report writing.

643 Personality Assessment II (1–5)
Prereq: 642. Advanced topics in personality
assessment including integrating results from
various tests, integrative report writing, and
assessment-treatment linkage. Practical experience completing psychological batteries in
clinical settings.

#### 644 Behavioral Assessment (1-5)

Prereq: 637A. Theory and practice associated with behavioral assessment. The use of direct observation methods and self-report scaling

highlighted. Integrates behavioral assessment methods with clinical practice.

#### 645 Clinical Assessment of Children and Adolescents (4)

Prereq: 637C, 641, 642. Administration, scoring, and interpretation of major intellectual and personality tests used with children and adolescents; diagnostic interviewing techniques with children; assessment of special problems; integrative report writing.

#### 649 Assessment Practicum (1-5)

Supervised clinical experience in selected aspects of psychological assessment such as intelligence testing and personality assessment.

#### 6SO Treatment Survey (1-5)

Prereq: 637A. Basic treatment issues and approaches relevant to clinical psychology with emphasis on major schools of psychotherapy and short-term intervention approaches. Examination of appropriate assessment and methodological considerations associated with treatment.

- 674 Psychological Aspects of Aging (4)
  Current theory and research on the changes and consistencies in behavior related to aging, including learning, memory, personality, motivation, interpersonal perception, and adaptation to change; implications of research findings for the daily functioning of the older person.
- 680 Health Psychology (4)
  Overview of theory and research in health psychology; psychological factors in such disorders as hypertension, coronary artery disease, headache, chronic pain, asthma, and immune disorders; applications and effectiveness of psychological interventions.
- 688 Issues in Professional Psychology (3)
  Prereq: grad in psychology. Examines educational, ethical, and professional issues associated with the field of clinical psychology.
- 692 Research Seminar (1, max 15)
  Presentations by faculty, graduate students, and visiting lecturers. First-and second-year graduate students in experimental psychology are required to attend seminars and to give one research presentation each academic year during the seminar.
- 693 Seminar in Teaching of Psychology (2) Issues in and approaches to teaching in the field of psychology. Includes such topics as characteristics of good classes and teachers, syllabus preparation, lecture and discussion techniques, exam preparation, and grading. Includes experiences with feedback.
- 695 Thesis (1-10)
- 701 Experimental Sensory Psychology (5)
  Prereq: 712. Analysis of classical sensory systems
  (vision, audition, olfaction, somatic, regulatory,
  etc.) and their contributions to various behaviors.
- 703 Advanced Learning (S)
  Lectures and readings covering theoretical works in field of learning.

#### 704 Cognitive Processes (S)

Theory and research in human cognitive processes such as attention, memory, knowledge structures, language, reasoning, problem solving, and judgment and decision making.

706 Psychology of Communication (4)
Application of communication theory,
psycholinguistic principles and readability
measurement to process of communication, with
emphasis on written communication.

#### 707 Psycholinguistics (4)

How people produce, understand, and acquire language within framework of major psychological and linguistic theories of language. Emphasis on user of language rather than on language.

70B Psychology of Judgment and Prediction (5) Examines normative and descriptive models of human judgment with emphasis on clinical judgment and prediction. Bias, diagnosis, selective information usage, and intuition also included.

710 Motivation (5)

Dynamics of motivation including treatment of traditional theories, as well as achievement and cognitive motivational theories.

712 Physiological Psychology (5)
Biological basis of behaviors with emphasis on central nervous system and neurological disorders.

714 Comparative Psychology (5)
Behavior of lower and higher organisms leading up to humans.

715 Psychology of Human Differences (5) Methodology, basic principles, and general findings in individual differences in intelligence, personality, interests, and perception; group differences by sex, age, race, and socioeconomic class.

718 History and 5ystems of Psychology (5) Historical review of major systematic position in psychology since the 18th century. Philosophy of science for psychology, including issues in theory construction and evaluation, consciousness, and reductionism.

727 Psychophysiology (4) Human psychophysiology.

728 Applied Psychophysiology (4)
Prereq: 727. Theory and research on the application of psychophysiological procedures to assessment and intervention in behavior therapy and behavioral medicine.

735 Experimental Social Psychology (5) Major theoretical and research trends with emphasis on attitudes, social perception, and small-group behavior.

736 Advanced Social Psychology (5)
Major research and theoretical trends in social
psychology; observational learning and social
motivation.

748A,B,C,D Neuropsychology (1–5)
Prereq: 637A. Didactic training in structure of central nervous system, types of organic disorders, and diagnosis of neurological disorders. Topics include neuroanatomy and functional approaches to spinal cord, brain stem, cerebral hemispheres, cortex, subcortex, limbic system, and cerebellar hemispheres. Brainbehavior and endocrine relationships are also reviewed. Clinical case material is presented.

750A,B,P Individual Psychotherapy (1–5)
Prereq: 637A. Theory, research, and practice of individual approaches to psychotherapy with adults; emphasis on brief and empirically supported therapies. Practicum involves supervised psychotherapy work with a client.

751A,B,P Behavior Therapy (1–5)
Prereq: 637A. Integrated treatment sequence in behavior therapy. Theoretical, empirical, and clinical basis for practice. Practicum gives supervised experience applying behavioral principles to clinical problems.

752A,P Cognitive Therapy (1-5)
Prereq: 637A. Didactic instruction and supervised clinical experience in cognitive-behavior therapy. Readings in clinical literature, instruction, and supervised clinical cases emphasizing the techniques and methods of cognitive-behavior therapy.

753A,B,P Community Psychology (1–5) Prereq: 637A. Interventions and research in community psychology including consultation, mental health education, prevention of mental disorders, program evaluation, and services for underserved clinical populations. Practicum involves supervision of pertinent clinical experiences.

754A,B,P Group Therapy (1-5)

Prereq: 637A. Didactic instruction and supervised clinical experience in the techniques and methods of group psychotherapy. Typically one quarter of didactic instruction and readings in the clinical-literature and two quarters of supervised experience as a group therapist.

755A,B,P Child Therapy (1-5)

Prereq: 637C. Didactic and practicum training in intervention with child and adolescent psychological disorders.

756A,B,P Family Therapy (1-5)

Prereq: 637A, 637C or concurrent. Survey of behaviorally-oriented family therapy approaches followed by an in-depth presentation of functional family therapy, a behavioral systems approach. Role playing, discussion, and supervised interventions with families are methods used to teach this model. Low-income, multiproblem families are typical clients in this sequence.

757A,P Interventions with the Aging (1–5) Prereq: 637A. Review of psychological approaches to the understanding, assessment, and treatment of problems of the elderly. Practical, supervised experiences with an aging population are included.

758A,B,P Interventions in Health Psychology (1–5)

Prereq: 680. Application of psychological assessment and interventions to health psychology problems including chronic pain, headache, adaptation to chronic disease, psychological problems complicating medical treatment and compliance, stress-related disorders.

761 Survey of Industrial and Organizational Psychology (5)

Application of psychological theories and research to topics in organizational behavior and personnel psychology.

762A, B Organizational Psychology (4)
Prereq: 761. Study of behavior in organizations:
(A) organizational behavior: motivation, social influence and groups, and leadership; (B) organizational theory: classical and contemporary perspectives on the process and structure of organizations.

763A Context Analysis (4)

Prereq: graduate standing. Introduces students to the theories and methods for analyzing contexts (e.g. environments, situations) for the purpose of selection, training, design, or diagnosis of individuals in these contexts. Methods of organizational, job, and task analysis will be emphasized.

764A, B Personnel Psychology (4)
Prereq: 622 and 761. Topics in personnel
psychology: (A) criterion development and
performance evaluation: theoretical and
practical aspects of criterion development and
performance evaluation; (B) selection and
placement: psychological, measurement, and
legal perspectives on selection and placement.

765 Practicum in Industrial and Organizational Psychology (1–5, max 15)

Prereq: 761, 762A or B, 764A or B. Supervised field experience in organizational settings.

773 Developmental Psychology (5)
Principles and research covering development of human abilities and behavior. Topics include developmental research methodology; basic processes in development; and physical, motor, perceptual, linguistic, emotional, motivational, social, and personality development.

775 Psychology of Exceptional Individuals (5) Characteristics and problems of exceptional individuals: mentally retarded, mentally superior, sensory handicapped, emotionally disturbed, and culturally disadvantaged.

781 Pediatric Psychology (4)

Theory and research on the relationship between the psychological and physical well-being of children, behavioral and emotional concomitants of disease and illness as they affect children and their families, applications and effectiveness of psychological interventions.

788 Diversity Issues in Research and Clinical Practice (4)

Prereq: 637A and 640. Examination of the sociocultural context of human behavior and, in particular, issues of diversity in research and clinical practice. Three areas are discussed: (1) methodological and epistemological issues in the study of culture in psychology, (2) the influence of culture on psychiatric diagnosis and the prevalence of mental disorder, and (3) the effect of culture on the therapeutic relationship.

789 Clinical Practicum (1–5, max 20)
Prereq: 750A, 751A, 754A, 755A, 756A, or 75BA.
Practicum experience for graduate students in clinical psychology. Psychological services provided under supervision in a clinical setting.

790 Readings in Psychology (1–5, max 20) To broaden training of master's or doctoral students in areas in which they need further work, which cannot be obtained through specific courses at present.

791 Research (1–5) May be repeated.

796 Fieldwork in Psychology (1–15) Supervised experience in applied setting approved by department. May be repeated. 1–15 lab.

B25 Causal Modeling (4)

Prereq: 623. Linear models, path analysis, and causal modeling with emphasis on using the LISREL computer program.

B26 Advanced Testing Principles (4)
Prereq: 623. Test theory and statistical
considerations in construction, use, and
interpretation of psychological measures.

B27 Multivariate Statistics I (5)
Prereq: 623. Introduction to multivariate
statistics. Topics covered are matrix algebra,
multiple regression, canonical correlation,
discriminant analysis and classification, and
factor analysis. Variety of commercial computer
programs used.

828 Multivariate Statistics II (4)
Prereq: 827. Advanced topics in multivariate statistics, including multivariate analysis of variance (MANOVA), confirmatory factor analysis and causal analysis (LISREL), and log-linear models. Variety of commercially available computer programs used.

B33 Advanced Theories of Personality (5)
Prereq: 633. In-depth analysis of selected modern
theories and related research, taken from ego
psychology, cognitive-perceptual, dimensional,
developmental, or social viewpoints.

BB4 Psychopharmacology and Psychotherapy (4)

Prereq: 637A, 650. Nature and clinical use of major types of psychotropic medications; emphasis on antidepressants, mood stabilizers, antianxiety, and antipsychotic agents and on the clinical use of these medications in combination with psychological treatments.

889 Advanced Clinical Practicum (1–5, max 20) Prereq: 750P, 751P, 754P, 755P, 756P, 758P, or 789. Advanced practicum experience for doctoral students in clinical psychology. Psychological services provided under supervision in a clinical setting.

891 Research in Psychology (1-6)

894A-Z Advanced Seminar in Psychology (1–5, max 18)

895 Dissertation (1-15)

#### **Social Sciences**

http://www-as.phy.ohiou.edu/ Departments/History/graduate/ socialscience.html

The Master of Social Sciences degree is designed for graduate students who need to study two or more subjects within the social sciences field to earn a master's degree. Although most students are public school teachers, candidates in other occupations may apply. The degree is intended for students concluding their graduate education at the master's level.

The program is directed by a coordinator appointed by the dean of the College of Arts and Sciences. This coordinator supervises the policies that guide the program and coordinates admission, assignment of advisors with the social science departments, and the selection of a committee to administer the terminal oral examination.

#### **Degree Requirements**

To earn the Master of Social Sciences degree, you must complete a minimum of 50 quarter hours in a minimum of 10 graduate courses in two or more of the social science disciplines.

Major and minor fields and auxiliary areas are chosen from history, political science, economics, sociology-anthropology, and geography. Other subject fields such as psychology and social work that relate to your academic interest may be approved as minor or auxiliary fields.

Courses and credit are distributed as follows:

- **1** A major of five to seven courses equalling a minimum of **20** graduate credit hours.
- 2 A single minor, a minor and an auxiliary area, or two auxiliary areas. A

minor consists of three to five courses for a minimum of 12 graduate credit hours. An auxiliary area consists of two courses for a minimum of 8 graduate credit hours.

- **3** Optional electives. One or two courses, for a maximum of 10 graduate credit hours, can be taken in other social science, science, or humanities areas if they relate to your academic program in the judgment of the coordinator.
- 4 Graduate survey requirement. You must complete one graduate survey course in your discipline designed to present a comprehensive survey of recent scholarship in that field.
- **5** Master's essay option. You can choose to write a master's research essay on a topic approved and directed by a graduate faculty member of your major field. The essay, taken for five hours of master's thesis credit, will count as one course in the major and as one of the 10 required courses.
- 6 Terminal examination. Upon completion of your studies, you must pass an oral examination designed and conducted by your examining committee. In composing this examination, the committee is guided by your program of courses and research so that the examination will be reasonable in scope.

#### **Admission Requirements**

You must have a bachelor's degree and at least one year of employment experience that is relevant to one or more social science disciplines. You should have an undergraduate grade-point average (g.p.a.) of 2.75 for unconditional admission. If your undergraduate g.p.a. is below 2.75, you are encouraged to apply but may be admitted conditionally or denied admission.

If you have 24 to 30 undergraduate credit quarter hours in an intended major, you may be required to undertake a minimum of seven courses and 28 quarter hours of graduate credit in your major. If you have fewer than 24 quarter hours of undergraduate credit in an intended major, you are required to register as a special student and take undergraduate courses required by the major department to qualify for

graduate study in this program.

No more than 12 quarter hours in a maximum of three graduate courses passed with a grade of B or better can be accepted for this program from other colleges or universities. Credit earned in other Ohio University programs which, in the judgment of the coordinator, is appropriate for this program may be applied toward completion of the degree.

#### Social Work

http://www.as.phy.ohiou.edu/ Departments/SocWrk/grad.html

The Master of Social Work (M.S.W.) program prepares students for clinical or administrative practice with a rural focus. A minimum of six quarters—90 credit hours—is required, including five quarters of fieldwork internship (one 160-hour quarter and four 200-hour quarters), except for Advanced Standing students, who must have a bachelor's degree in Social Work and meet other criteria. Advanced Standing students complete 45 credits over four quarters, with three quarters in field internship. The program admits students only in the fall quarter.

When applying, students are expected to have completed or nearly completed a bachelor's degree with course work in quantitative analysis, human biology, the humanities, and the social sciences, with course work in one social science area beyond the introductory level. Students must also submit an official transcript, scores on the general portion of the Graduate Record Examination, evidence of paid or volunteer experience in human services, three references, and an essay. The form for the essay and the most recent admissions criteria can be obtained from the Department of Social Work or its Web site.

#### Social Work Courses (SW)

500 Social Work Orientation Seminar (3) Introduces students to the unique region of Ohio University through music, literature, films, folk art, and community exploration. Explores values, cultural systems, and social issues; and provides a forum for beginning the field place-ment process.

#### 501 Human Behavior in the Social Environment I: Human Growth and Development (4)

Incorporates biological, psychological and sociological perspectives on human development across the life cycle. Views human growth and development through ecological and systems perspectives with examination of the role of gender, class, sexual orientation, health status, and racial and ethnic membership.

#### 502 Human Behavior in the Social Environment II: Biopsychosocial Interactions (4)

Prereq: S01. Explores the exchange among human biology, psychology, social and cultural systems to develop knowledge and sensitivity to concepts of multicausality and human diversity. Focus on the interaction and effects of social problems on different system levels as well as variations arising from race, culture, gender, socialization, sexual orientation, poverty, physical and/or cognitive impairment, stress, and maltreatment.

## 510 International Social Work and Social Welfare (4)

This course explores international social work and social welfare in the context of global social issues. Using Africa as a primary focus, the course presents an overview of the social work profession, the impact of global interdependence on social work practice, and historical and current social welfare challenges facing the developed and developing nations.

#### 522 Social Welfare Policy and Services I: History of Social Welfare and Social Work (4)

Presents an historical review of service delivery systems and the development of the social work profession. Considers the structure, operation, implementation and outcomes of social services; the values and ethics in social policy; the meaning of oppression and social justice; and the impact of social policy on the needs of women, persons of color, the poor, and other groups.

## Social Welfare Policy and Services II: Special Topics in Social Welfare (4)

Prereq: 522. Analyzes the development, operation, impact and strategies for change in today's social welfare policies and services. Responds to contemporary policy development throughout the U.S., with emphasis on federal, Ohio, and Appalachian targeted policies. Explores special settings, specific population groups, and various social policy issues.

#### 540 Mental Health and Social Work (5) Explores the history of mental health policies, stereotypes associated with mental illness, and social work practice based on a strengths perspective. Student assignments include a paper on clinical or administrative intervention services to mental health clients residing in rural communities.

#### S41 Social Work Practice I: Foundations of Practice (4)

Provides students with a broad perspective and foundation of knowledge and skills for practice, the theoretical foundation of social work practice, and social work values and ethics in relation to professional roles.

### 542 Social Work Practice II: Assessment and Intervention (4)

Prereq: **541**. This course builds on the generalist perspective by exploring current practice theories assessment and interventions. Emphasis is on how various theoretical models affect assessments of case material and practice decisions.

#### 543 Social Work Practice III: Community-Based Practice (4)

Prereq: 542. Examines the systems in which people live, work, and are served, with focus on

principles of social work practice that may be used to empower people to access, negotiate with, influence, and change various systems within communities and organizations.

#### 550 Social Work in Health Care (S)

This course prepares students to provide social work services to individuals in health care settings. Incorporating micro- and macro-level content, it enhances student understanding of practice with diverse populations, health care policy and the role of social work values and ethics in health care. Student assignments include research, writing and presentation on various aspects of a single disease from practice, policy, and ethical perspecitives.

#### 570 Writing for Social Workers (5)

The course addresses the range of writing assignments common to social work practice, with a choice of focus in writing for clinical (case records, treatment summaries) or administrative (agency reports, public relations writing) as well as common assignments. The course also teaches APA style and peer review.

#### S80 Child Abuse and Neglect (5)

The course examines the processes of identification, reporting, referral, and case management of child abuse and neglect cases. Student assignments include a paper and project on multidisciplinary approaches to intervention with children and their families who reside in rural communities.

#### 584 Social Welfare Law (S)

The course examines the need for cooperation between the worlds of law and social welfare within the context of the legal system as it addresses the needs of people who are poor, old, members of minority groups, immigrants, and rural families. Student assignments include a critical analysis of a course topic or population group which traces how law has evolved regarding the issue or group over time, the methods by which the changes occurred, and noting significant legislation, case law and court decisions regarding it.

#### S86 Aging in American Society (S)

This course reviews knowledge on the social life and issues facing older people in the United States. Attention is devoted to social welfare policies and services designed to meet the needs of an aging population. Student assignments include research on what it means to "age in place" in rural communities, highlighting the role of the family.

#### 591 Foundation Field I (4)

Helps students acquire knowledge, values, skills, and ethics in social work practice. Requires 16 hours per week in a social agency.

#### 592 Foundation Field II (4)

Prereq: 591. Helps students acquire greater knowledge, values, skills, and ethics in social work practice. Requires 20 hours per week in a social agency.

#### S98 Independent Studies (1-6)

These courses enable students to focus on the study of a topic of particular interest to them, which may not be of broad enough interest to warrant the development of a standard elective.

#### 600 The Rural Social Agency (4)

The course is designed to introduce students to select concepts and practices of agency-based invention in a rural setting. The course emphasizes agency-based practices focusing on initiating planned change in an organization. Student assignments require that students maintain a journal of course readings, analyze the structure of an organization, and write a grant proposal to meet an organizational need.

641 Administration: Theory and Analysis (4) The purpose of this course is to provide students with knowledge and skills in management and social work administration. Management theories consistent with social work values are provided for students to understand the roles and responsibilities of the administrator. Agency planning, program design, information management, decision making, leadership, supervision, staff development, financial management, budgeting, Board operations, and program evaluations are studied. Student assignments include interviewing a social agency administrator, analyzing a social agency in terms of organizational structure, goals, objectives, staffing, management, and budget, and identifying an administrative problem or recommended change to be presented orally and in writing

#### 642 Designing Rural Services (4)

This course prepares students to learn how to plan and develop new services and adapt classic programmatic ideas to the unique needs of rural populations. Student assignments include writing a paper that describes: a rural service need that is currently unmet, service needs, program implementation, and methods of soliciting support from each of several community groups.

#### 643 Resource Management (4)

The course prepares students to adapt from the direct practitioner role and to develop the various skills needed for management in the current environment. Student assignments include critiquing verbally and in writing an article on resource management and, using the grant proposal developed in 600, locating three potential funding sources, revising the proposal for each funding source, developing a verbal justification of the proposal and presenting it to the class (which will act as a funding board), assessing and ranking other students' proposals, and writing a final report incorporating and explaining a problem with implementation.

## 651 Direct Practice with Children and Adolescents (4)

The course is designed to develop skills for social work practice with children and adolescents living in rural communities. The course emphasizes intervention methods and theory, interweaving issues of diversity, gender, and rural communities. Student assignments require that students analyze the case of a rural child or adolescent in their practice, incorporating a biophysical assessment, identifying an appropriate theoretical intervention model, and discussing any relevent cultural, rural, or ethical issues.

#### 652 Direct Practice with Adults (4)

The course presents advanced clinical knowledge, assessment skills, and intervention strategies for students in the clinical concentration. Course content includes the understanding of psychopathy, psychotropic medications, and the role of social workers working in a variety of mental health and other clinical settings that deal with the personal, interpersonal, and social issues faced by adult clients. Student assignments require students to present a case from their own practice that deals with any psychosocial or environmental issue identified in Axis IV of the DSM and develop a detailed client map with an emphasis on the social worker's role, psychosocial assessment, range and systems level of interventions, theoretical basis for intervention and techniques used, how the strengths perspectice was used, how diversity issues were evaluated, and how the rural environment affected the client's situation.

#### 653 Strengthening Families in Rural Environments (4)

This course prepares students to provide services to families in rural communities, addressing assessment, intervention, theoretical models of family practice and how diversity, including nontraditional family forms, are impacted by rural settings. Student assignments require students to write brief papers on a choice of three of the following culturagrams, family poverty, ethnicity, gay/lesbian family dynamics, single parent families. divorce, assessment of family functioning, and theoretical models of family practice; and a case analysis of an at-risk family, addressing assessment, diversity issues, the rural environment, and intervention models and their implications.

- 661 Social Work Research Methods (4) Examines research methods as they apply to social work practice: formulation of problems. development of research questions or hypotheses, study designs, data collection, data analysis, interpretation of findings, and writing research reports. Emphasis on technology and its use in social work research.
- 662 Computer Applications in Data Analysis (4) This course provides students with opportunities to conduct hands-on computer-based data input and data analysis using SPSS for quantitative analysis and Ethnograph for qualitative analysis.
- 663 Practice and Program Evaluation (4) The course provides students with opportunities to practice and master skills in conducting independent research, assessing the research of others and determining the optimal methods for evaluating their own clinical practice or administrative practice as well as policies that affect their practice and the client systems with which they work. Student assignments require that students evaluate an aspect of practice or program in their agencies, selecting a study variable, critiquing the research regarding that study variable, developing an approach based upon their weighting of the research, collecting and analyzing data and presenting it in textual, tabular, and graphic form in an end-of-quarter poster presentation.

#### 690 A-Z: Special Topics (1-12)

These courses address emerging issues or newly recognized interests or needs. They can be offered once without the defay of prior college and University approval. They can also highlight a portion of a course and be offered for fewer credits than the entire course.

691 Advanced Field Practicum I (4) The primary purpose of the advanced field

instruction is to assist the student to progressively build upon the solid substructure of knowledge, skills, values, and ethics in social work practice gained during the foundation field experience so that the student may develop and utilize advanced practice skills in conjunction with his/her personal and professional development, courses, and individual placement in rural Appalachia.

- 692 Advanced Field Practicum II (4) The primary purpose of the advanced field instruction is to assist the student to progressively build upon the solid substructure of knowledge, skills, values, and ethics in social work practice gained during the foundation field experience so that the student may develop and utilize advanced practice skills in conjunction with his/her personal and professional development, courses, and individual placement in rural Appalachia.
- 693 Advanced Field Practicum III (4) The primary purpose of the advanced field instruction is to assist the student to progressively build upon the solid substructure

of knowledge, skills, values, and ethics in social work practice gained during the foundation field experience so that the student may develop and utilize advanced practice skills in conjunction with his/her personal and professional development, courses, and individual placement in rural Appalachia.

#### 694 Integrative Seminar (4)

The primary purpose of the integrative seminar is to assist the student to synthesize the knowledge and skills from all previous courses, including field, and to engage students in the process of critical thinking to apply that learning to actual and simulated practice sessions. Student assignments will require that 3-4 member groups of students conduct in-depth analyses of cases from literature review of pertinent issues. through assessment, case planning, outcome evaluation, analysis of ethical implications, and textual, web-based, individual and organizational resources to be presented orally and in writing

#### Sociology

http://www.cas.ohiou.edu/socanth/

The M.A. program in sociology offers preparation for advanced graduate training, teaching, and employment in various government and private agencies.

The Department of Sociology and Anthropology has a policy document, available upon request, that describes the organization of the M.A. program. You consult with a faculty committee to design your program, which involves selecting courses and choosing between thesis and nonthesis options. A minimum of 50 hours of graduate coursework is required for the degree, plus examinations, a major paper, or a thesis. While the bulk of the coursework must be done in sociology, you also may take a limited number of courses in related fields. The program is flexible and is designed to provide a fundamental grounding in theory and methods while allowing students to pursue specialized interests. The department has particular strengths in criminology, social inequality, gender studies, social psychology, and research methods. Upon request, a list of faculty members and their interests will be provided by the department. You should allow for four to six quarters of study.

You should have completed a minimum of 20 hours in sociology, including courses in statistics, methods, and theory. To apply, you should have an overall grade-point average (g.p.a.) of 3.0 on a 4.0 scale and at least a 3.0 g.p.a. in undergraduate courses in sociology. Submit to the Office of Graduate Studies an application for admission and transcripts of all academic work; submit

to the Department of Sociology and Anthropology a written statement of the area or areas of the discipline in which you are interested and why you want to study sociology, a sample of your written academic work, and letters of reference from three persons qualified to evaluate your capacity for graduate study in sociology. International students whose native language is not English must also submit the Test of English as a Foreign Language (TOEFL) scores.

Applications for admission are accepted until six weeks before the beginning of a quarter (three months for applications from abroad). Applications for financial awards ordinarily must be completed by March 1.

A limited number of graduate assistantships and OGS stipends are available. For information, write to the chair of the sociology graduate committee.

#### Sociology Courses (SOC)

- S03 Development of Sociological Thought (S) Major sociological concerns and concepts in their social-historical setting. Emphasis on 18th and 19th centuries
- 504 Modern Sociological Theory (S) Major sociological conceptual frameworks in 20th century.
- 505 Readings in Sociology (1-5, max 15) Independent directed readings designed to expand understanding in selected areas of interest not covered in regular course offerings. Not for preparation for comprehensive exams, final paper(s), or thesis.
- 507 Feminist Social Theory (S)

This course provides a general overview of contemporary perspectives in feminist social theory and cultivates awareness of the implications these perspectives hold for sociology. It also provides an in-depth examination of some of the influential writings by feminist sociologists. The course focuses on the ways in which basic assumptions, concepts, and questions in sociology are brought to light from feminist points of view.

508 Latin American Society (5)

Intensive study of Latin American society from a sociological perspective. Emphasis on contemporary Latin American values, population problems. human-land relations, levels and standards of living, social institutions, urbanization, and social change.

\$12 Public Opinion Processes (\$)

Attitudes and opinions in relation to formation of public opinion; political socialization and participation; social status, reference groups, decision making; role of mass media.

513 Mass Communication (5)

Personal and social functions of content in newspapers, radio, television, and films. Types of audiences and communication effects. Organization and control of mass media and problems in evaluation.

514 Contemporary Social Movements (5) Organized movements resulting in major social changes; revolutionary, nationalistic, reform, religious. Agitation, leadership, ideology. Case studies of typical movements.

516 Society and the Individual (5) Exploration of compatibilities and contradictions in psychological systems, culture, and social structure.

519 Group Processes (5)

Major theories and methods for study of small group as unit of social systems. Study of communication patterns, role definition, leadership, cohesion, and interaction are included in reviews of current literature.

**522** The American Family System (5) Evolution of American family from colonial to present time. Analysis of structural and functional trends in light of theory and research.

524 Urban Sociology (5)

Historical development and recent emergence of city as dominant feature of modern social life. Demographic and ecological patterns and social organization of urban region.

525 Sociology of Food Production (5)
Examination of structural characteristics of agricultural sector of American society. Historical developments and current trends in demography as they relate to industrialization of agriculture, and examination of responses to these trends.

526 Industrial Sociology (5)

Various techniques used by management in U.S. to control employees, employee resistance and alienation, and proposals for changing present work arrangements. Examination of work relations and organization in Scandinavia, Germany, Yugoslavia, and Japan.

528 Sociology of Religion (5)

Interrelationship between religious institutions and social structure from comparative perspective but with particular reference to American society.

529 Sociology of Race, Ethnicity, and Class (5) This course is designed with a concern for understanding racism and classism at the macro level of analysis. An interpretation of social forces affecting race and ethnicity as determinants of social class will be covered. The course will foster an understanding of racial and ethnic diversity.

530 Sociology of Organization (5)

Concentrates on structure and process of formal organizations. Modern society dominated by giant bureaucracies studied in detail. Various sociological perspectives for viewing organizations considered and evaluated. Impact of organizations on individuals discussed and problems of living in society dominated by organizations treated in depth.

532 Political Sociology (5)

Analysis of social, economic, and political sources of corporate domination of state, opposition to such domination, and strategies for reducing it.

#### 533 Sociology of Occupations and Professions (5)

Professionalism as characteristic of modern economic and industrial complexes; popular conception and modern theory; social and technological preconditions; occupation-profession continuum; components, barriers, and strategy; mock-professionalism; motivation and satisfaction; controls; professionalism in particular professions.

**535 Sociology** of the Welfare State **(5)** How proponents of sociological perspectives deal with the emergence, organization, growth, and contemporary issues of the U.S. social welfare

systems. Some attention will also be paid to the social welfare systems of Sweden and other European countries.

550 Data Analysis (5)

Focuses on the ability to analyze research data in the social sciences. Linkages between measurement, statistics, and interpretation of results are stressed in exercises. Unscheduled computer laboratory commitment is required.

553 Research Problems in Sociology (1–5, max 15)

Individual research in specific problem areas in which student has demonstrated ability and interest. Not for preparation for comprehensive exams, final paper(s), or thesis.

564 Law and Social Control (5)

Explores the nature of institutional control and sociocultural constraint as they affect human behavior. Issues covered include the development of formal control mechanisms in societies, precursors of legislative and judicial law, the binding force and authority of law, the effectiveness of formal control mechanisms for reducing specific behaviors, how administrative agencies increase regulation of daily life and "net widening" occurs, and law's effectiveness as a social change agent. Reading material covers the U.S. and some other societies.

565 Social Change (5)

Prereq: 12 hrs. Dynamics and processes by which social change takes place, major theories of change, industrialization and modernization, planned change, social impact of change.

566 Penology (5)

History, practices, and purposes of punishment using organizational, criminological, and sociological perspectives. Effectiveness of rehabilitation programs explored. Alternatives to incarceration examined.

567 Violence Against Women (5)

Examines related forms of violence where women are the predominant victims: forcible rape, marital rape, incest, spousal assault, date rape and assault, and sexual harassment. Role of pornography examined. Emphasis on current theoretical and empirical findings and developments.

570 Sociology of Gender (5)

Prereq: 8 hrs sociology. Examination of social influences that affect lives and opportunities of females and males in society, how these social influences interact to foster gender inequalities, and changes that are occurring.

571 Gender and Justice (5)

Explores how the interpretation and application of criminal law reflect assumptions about men's/ boy's and women's/girl's natures, appropriate roles, and positions in society. Historic and contemporary readings examine the prosecution of violence against women; the prosecution, sentencing, and correction of women offenders; and women's access to the profession of law, particularly the judiciary. Readings highlight how structure at the societal and organizational level and interpersonal interaction contribute to legal gender effects and to the intersection of race and class with gender.

590 Special Studies (1–5, max 10) Studies of special topics in basic sociological perspectives, theory, and methods.

600 Graduate Seminar (5)
Critical examination of selected topic.

**601** Graduate Seminar (5) Critical examination of selected topic.

602 Graduate Seminar (5)
Critical examination of selected topic.

603 Seminar: Crime and Deviance (5)
Critical examination of topics in area of social disorganization.

604 Graduate Seminar (5)
Critical examination of selected topic.

605 Graduate Seminar (5)
Critical examination of selected topic.

606 Graduate Seminar (5)
Critical examination of selected topic.

**607** Graduate Seminar (5) Critical examination of selected topic.

608 Graduate Seminar (5)
Critical examination of selected topic.

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Critical examination of selected topic.

**611 Graduate Seminar (5)** Critical examination of selected topic.

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614 Graduate Seminar (5)
Critical examination of selected topic.

615 Seminar in Social Psychology (5)
Prereq: permission. Systematic examination of contemporary theoretical and research issues in social psychology. Topics may include theory and research on self, equity, expectations, exchange,

616 Sociological Theory (5)
Systematic examination of sociological theory
with an emphasis on current theoretical
perspectives and debates.

620 Social Policy (S)

and emotions.

This seminar explores a number of domains of social policy and the following sociological questions: How is social policy formed? What government and institutional processes result in the creation and alteration of social policy? How are members of the lay public involved in the creation and alteration of policy? What are the limits of social engineering? Do social policies achieve the ends toward which they are directed? Where does social policy break down? To what extent is social policy implicated in the maintenance of existing structures of power and social inequality? How do we evaluate social policy analyses?

654 Social Research Methods (5)
Analysis of process of sociological research in terms of problem definition, research, design, data sources, and methods of data analysis.

690 Independent Study (1-5, max 10)
For graduate students in good standing who
wish to undertake independent study toward
M.A. degree under guidance of faculty member.

691 Seminar in Teaching Sociology (5)
Prereq: permission of instructor. This course is only for sociology graduate students engaged in the teaching internship process. The seminar will reinforce classroom experiences with discussion of teaching techniques and processes.

695 Thesis (1-10, max 10)

#### Women's Studies

#### http://www.ohio.edu/womenstudies/

The Women's Studies Program offers an interdisciplinary graduate certificate in women's studies. Students enrolled in any master's or doctoral program at the University may pursue this certificate by taking three of the courses listed below and WS S89 for a minimum of 17 credit hours. Two of the three courses must be outside the student's major field of study.

#### Women's Studies Courses (WS)

# 501 Fundamentals of Women's Studies (5) This course is an introduction to theories and methods employed in the study of women and gender. Students will develop a critical framework for thinking and writing about

#### 589 New Feminist Scholarship: Graduate

gender, race, class, and sexuality.

Capstone Seminar in Women's Studies (S) This course explores new scholarship on women and gender through critical analysis of the recent literature on these topics and through reflection on students' curent academic work and research.

\$90 Independent Reading (1-5, max 5)
Directed individual reading and research.

#### 593 Special Topics (S)

This course will focus on specific topics focusing on women and/or gender.

In addition, the following courses also count for credit toward the certificate in Women's Studies. Descriptions are listed under the various departments.

AAS S82	The Black Family
ANTH S4S	Gender in Cross-Cultural Perspective
ANTH 549	Life History: The Individual and Culture
ANTH 563	Gender in Prehistory
ENG 537	History of Criticism: Contemporary Feminist Theory
HCCF 562A	Diversity in Families
HIST S20A	Women in American History before 1877
HIST S20B	Women in American History since 1877
HIST S20C	Women's Health and Medicine in U.S. History
HIST S32	Women in the Middle East
HIST 553	Studies in Medieval History: Women in Medieval Society
HIST S60	Women in European History
HIST S60C	Women Warriors
HIST 602/802	Colloquium on U.S. Women's History
INCO 621	Gender and Communication
INCO 622	Communication in the Family

INCO 742	Feminist Rhetoric Theory
PESS SOO	Women in Sports
POLS S19	Gay and Lesbian Politics
POLS S20	Women, Law, and Politics
POLS S21	Politics of Law and Sexuality
POLS S78	Feminist Political Theories
POLS S90H	Women and Politics
POLS S90T	Feminist Legal Theory
POLS S90U	Deconstructing Barbie
SOC 507	Feminist Social Theories
SOC S67	Violence against Women
SOC 570	Sociology of Gender
SOC S71	Gender and Justice
TCOM S81	Women and Media
TCOM S86A	Age, Class, Gender, Race, and

Sexual Orientation in the Media

## College of Business

**Copeland Hall** 

Glenn Corlett

http://www.cob.ohiou.edu/

The College of Business offers the Master of Business Administration (M.B.A.). The M.B.A. is available through a full-time program, Executive MBA, and the MBA Without Boundaries. The full-time M.B.A. is offered on a residential basis on the Athens campus. The Executive MBA is offered on the Lancaster campus in a two-year sequence of weekend courses and is open only to experienced business executives. The MBA Without Boundaries, a part-time, two-year program, combines the convenience of on-line education, the latest in information technology, and face-to-face interactions with faculty and colleagues during high-intensity residential experiences. All programs are accredited by the Association to Advance Collegiate Schools of Business.

# Graduate Programs and Courses

Information on graduate programs appears in the following pages. For further details on full-time programs, contact College of Business Graduate Programs, Ohio University, Copeland Hall, Athens OH 45701-2979, telephone 740-593-2007. For further details on the Executive M.B.A., contact the director, EMBA Program, Ohio University, Copeland Hall, Athens OH 45701-2979, telephone 740-593-2028.

Information on the college and its graduate programs is also available on the college Web site.

#### Full-Time M.B.A.

http://www.cob.ohiou.edu/grad/

The M.B.A. program is considered an integral part of individual career development. It provides a comprehensive and integrated set of activities designed to foster your personal and professional growth. Close interaction with the faculty, an integrated electronic network environment, contact with executives, and a joint student consulting project abroad all contribute to your development.

The M.B.A. stresses producing a competent, ethics-oriented general manager with the appropriate skills and expertise to manage in a competitive global environment.

The full-time M.B.A. program is an intensive 12-month program that begins in late August, with classes meeting until September of the following year except during the period between Christmas and New Year's. Students who join the program without an undergraduate background in business must begin their M.B.A. study in mid-June with an intensive 10-week prerequisite program. A total of 72 credit hours of instruction is required over the 12 months. Twelve of

the 72 hours are focused in a specific discipline: finance, human resource management, management information systems, marketing, or students may design their own area of concentration through independent study projects. In addition, an advanced concentration in accounting is available to undergraduate accounting majors. These graduate hours satisfy the requirement for advanced study necessary to sit for the CPA exam.

In addition, a unique dual degree opportunity joins the M.B.A. with the Master of Sports Administration. This seven quarter dual degree program offers a dynamic curriculum combining the core benefits of an M.B.A. with the focused courses of the M.S.A. and recognizes the growing complexity of the sports, facility, and entertainment industries.

The full-time M.B.A. program provides the critical balance between theory and application. You are involved in developing the knowledge, skills, and abilities required of a successful manager. Learning in the context of solving complex business problems is stressed to accomplish the following goals:

Development of functional expertise

Development of managerial skills

Application and integration of functional and managerial expertise

Development of lifelong learning skills.

The central learning core of the program is a series of business problems. You will approach and solve the problems, sometimes in task forces, sometimes individually. You will be presented with course content in modules, with each module presented at a time when it will be useful to you for solving the current learning problem.

This methodology helps you learn content in the context in which you will apply it in the future, maximizes retention of knowledge, and helps you develop the ability to apply your knowledge. It also encourages what business has indicated to be important personal characteristics: reliability, personal responsibility, time management, initiative, adaptability, and the

willingness to take risks. Further, because of the learning environment, you learn to work using the latest in information technology, and you learn how to work cooperatively, managing ill-structured problems with a minimum of direction.

M.B.A. students are required to participate in the Joint Student Consulting Project (JSCP). Students work in a cross-cultural setting on project teams with students from a host institution. JSCP provides students with the valuable experience of working, even briefly, in a country with a different economic and cultural environment—and with a first-hand knowledge of the complexities of international business. Students pay approximately \$3,500 to cover travel expenses, and accommodations. JSCP generally takes place in the summer and lasts about three weeks.

The goal of the program is to provide to students:

A holistic understanding of business and the global environment in which business functions.

Knowledge of basic disciplines and the ability to apply that knowledge effectively.

The ability to analyze a complex, dynamic business situation, identify fundamental issues in nees of resolution, organize and synthesize ideas appropriate to that situation, and determine action to be taken.

The ability and self-confidence to take initiative and function independently.

The capacity to tolerate ambiguity and operate effectively under conditions of uncertainty.

The ability and self-confidence to clarify roles through interaction with others, within and outside of an organization.

The ability to manage self—time, stress, resources, and priorities.

The ability to communicate information and ideas effectively in formal and informal presentations and in writing.

The ability to work effectively using electronic information technology.

The ability to collaborate effectively—to influence others and be influenced; to listen and understand; to work out differences so they do not become destructive conflicts; and to use diverse perspectives, cultures, and expertise to maximize effectiveness.

#### Admission

Admission is competitive. Factors considered include undergraduate grade-point average (g.p.a.), Graduate Management Admissions Test (GMAT) scores, work experience, M.B.A. questionnaire, interview, and recommendations. International applicants also must include their score on the Test of English as a Foreign Language (TOEFL). Successful applicants typically have at least a 3.0 undergraduate g.p.a. (on a 4.0 scale) and a score of 500 or better on the GMAT; international applicants typically have a TOEFL score of 600 or better.

To apply, submit two official transcripts of your undergraduate work, three letters of recommendation, and responses to the MBA questionnaire (available from the College of Business Graduate Programs Office). In addition, you must have GMAT scores submitted by the Educational Testing Service (ETS), Box 966, Princeton NJ 08540. If your native language is not English, you must also have ETS submit your TOEFL scores.

The deadline for application is March 1 for domestic students; February 1 for international students.

#### **Financial Aid**

The College of Business has a number of graduate assistantships and OGS stipends available for students who demonstrate outstanding potential.

Requests for financial aid should be noted on the application form. All awards for financial aid are generally announced in April.

#### M.B.A. Without Boundaries

http://mbawb.cob.ohiou.edu/

Ohio University challenges traditional thinking about part-time MBA programs with a new and innovative approach to business education. The M.B.A. Without Boundaries combines the "any time, any place" convenience of on-line education, the latest in information technology, and face-to-face interaction with faculty and colleagues during intensive residential experiences. This program breaks down the barriers of conventional M.B.A. programs and is designed specifically for high-potential working individuals who want to be corporate leaders. It merges projectbased action learning with electronic collaboration. And, because students continue their employment while they're enrolled in the program, they can integrate work experiences with learning experiences to develop the knowledge, skills, and personal characteristics that help ensure long-term success.

The program, which is built around eleven major learning projects, requires a two-year commitment. It includes two one-week residencies—one at the beginning and one at the end of the program—three weekend residencies each year, and a final two-week international consulting project. At other times, students use an intranet to gain access to learning modules, perform individual research, collaborate with other members of their learning team, and interact with faculty.

For more information, visit the program's Web site. It describes the eleven learning projects that are the heart of the program and offers more detail about leadership skill development. You can also "meet" some of the program faculty and learn about its external review team—the group of business executives and learning experts who helped develop the program. You can even submit your application on line.

## Executive M.B.A. (at Lancaster)

http://www.cob.ohiou.edu/emba/

The Executive MBA Program is designed for experienced executives who want to earn an M.B.A. without career interruption. Courses are offered at the Ohio University—Lancaster campus. Classes meet three Saturdays and one Friday a month during each of two academic years. During the intervening summer, participants engage in an applied research project (domestic option) or a joint consulting project (international option).

The program is beneficial to both the employer and the executive. Organizations have the opportunity to strengthen management resources, and executives are able to upgrade their managerial skills and improve their opportunities for advancement.

The extensive business experience of both faculty and M.B.A. candidates, use of the seminar method for most teaching, and the deliberate attempt to select participants from diverse functional areas and businesses provide a stimulating intellectual experience.

Candidates must have a baccalaureate degree, a minimum of seven years of professional or managerial experience, and the support of their employer. A personal interview is the final step in the admission process.

For detailed information contact the Director, Executive MBA Program, Copeland Hall, Ohio University, Athens OH 45701-2979, telephone 740-593-2028.

#### Courses

#### **Accountancy Courses (ACCT)**

**501** Accounting Principles (4) Intensive overview of accounting theory, practice, and statement preparation.

502 Managerial Accounting (4)
Prereq: 501. Uses of accounting information for making managerial decisions.

503 Intermediate Accounting I (4)
Prereq: 502. In-depth study of conceptual
framework of accounting, disclosure standards
for general purpose financial statements, and
measurement standards for cash, receivables,
inventories, and associated revenues and
expenses, including application of compound
interest techniques.

504 Intermediate Accounting II (4)
Prereq: 503. Measurement and reporting
standards for tangible and intangible operating
assets, investments, liabilities, contingencies,
stockholders' equity, and special problems of
revenue recognition.

505 Intermediate Accounting III (4)
Prereq: 504. Measurement and reporting
standards for pensions, capital leases, interperiod
tax allocation, dilutive securities and earnings per
share, accounting changes and error correction,
statement of cash flows, financial statement
analysis, special disclosure standards, financial
reporting, and changing prices.

510 Cost Accounting (4)
Prereq: 502. Emphasis on manufacturing and service organizations. Topics include process costing, activity-based costing/activity-based management, analysis of cost variances, and complex capital budgeting issues.

513 Accounting for Governmental and Not-for-Profit Organizations (4)
Prereq: 503. Accounting theory for government and nonprofit organizations: financial reporting, fund accounting, budgeting, and control.

517 Federal Income Taxes (4)
Provides an overview of the impact of federal income taxes on conducting business as individuals, corporations, partnerships, and fiduciaries. W or Sp.

545 Accounting Information Systems and Internal Controls (4)

Prereq: 503. Use of computer technology and internal control concepts in the design, implementation, and operation of accounting information systems.

551 Auditing Principles (4)
Prereq: 505. Basic concepts and applications in external, internal, and governmental auditing. Includes an introduction to current audit technology.

601 Accounting Theory (4)
Prereq: 505. Development of accounting thought, with emphasis on alternative accounting models and different methods used in other countries.

603 Contemporary Financial Reporting Issues (4)

This course will include topics such as independence, compilation and review, partnership accounting, attestation and assurance, government and not-for-profit accounting, audit reports, and audit sampling.

606 Advanced Financial Accounting (4)

Prereq 505. Business mergers, consolidated financial statements, international operations, corporate bankruptcy, and branch office accounting.

610 Foundations of Accounting (4)

Introduction to the basic tenets and processes of accounting systems for financial statements and managerial reports. Study of the financial reporting process for investor and creditor decisions, including internal controls. Study of cost behavior, budgeting, and capital budgeting for managerial reports. Spreadsheet design and application integrated throughout the course.

611 Financial Statement Analysis (4)

Analysis of accounting data and financial statements to make decisions concerning financial position, operating results, and resource flows. Emphasis upon understanding accounting policy choices, integration of financial and non-financial information, and analytical techniques to assist in performance evaluation and profit planning. An additional emphasis will be use of managerial reporting on evaluation of corporate units, including strategic business units.

## 617 Taxation of Corporations and Shareholders (4)

Prereq: 517. Analysis of corporate taxes, contributions, distributions, redemptions, and liquidations. Overview of reorganizations and survival of attributes.

691 Seminar (1-5)

D.

693 Readings (1-5)

D.

697 Independent Research (1-5)

D.

699 Research (3-5)

## **Business Administration Courses** (BA)

#### 570 Administrative Policy (4)

Top management view of decision making affecting future operations of a business, and opportunities, risks, and responsibilities accompanying formulation of company policy and strategy.

#### 585 International Business (4)

Emergence of U.S. and non–U.S. multinational corporations, scope of their operations, and impact on U.S. economy and consumers.

#### 690 Research (3-5)

Methodology, data analysis, and preparation of research findings.

#### 691 Seminar (1-5)

Selected topics of current interest.

#### 693 Readings (1–5)

Readings on topics selected in consultation with faculty member.

#### 697 Independent Research (1-5)

Research in selected fields of business administration under direction of faculty member.

698 Internship (1-5)

#### **Business Law Courses (BUSL)**

#### 500 Law and Society (4)

Conceptual approach to origin, nature, structure, functions, and procedures of law with study of contractual relationships.

556 Law of the Management Process

Prereq: 500. Conceptual framework of legal nature of organizations, particularly corporations and partnerships: rights, powers, and limits of managers in relation to duties and responsibilities to their organizations, owners, creditors, employees, customers, state, and public.

#### 557 Law of Commercial Transactions

Prereq: 8USL 500 or perm. Legal aspects of commercial paper, consumer credit, and bankruptcy.

#### 565 Law of Sports (4)

Addresses legal issues raised by industry with vast contours. Regulations of amateur athletics, public regulation of sports activities, legal relationships in professional sports, enforcement of professional sports contracts, antitrust aspects of sports activities, liability for injuries in sports activities.

#### 570 Environmental Law (4)

Legal aspects of individual and societal environmental rights and duties with respect to U.S. Constitution, private property, nuisance, negligence, statutes, regulatory agencies, and court decisions.

#### 690 Research (3-5)

Methodology, data analysis, and preparation of research findings.

#### 691 Seminar (1-5)

Selected topics of current interest.

#### 693 Readings (1-5)

Readings on topics selected in consultation with faculty member.

#### 697 Independent Research (1-5)

Research on topics selected in consultation with faculty member.

#### Finance Courses (FIN)

#### 525 Foundations of Finance (4)

Role of financial management in business enterprise; financial analysis; planning needs for short-term and long-term funds; planning for profits; capital budgeting; internal management of working capital and income; raising funds to finance growth of business enterprises.

# 527 Financial Markets and Institutions (4) Functions of commercial banking system and other financial institutions. Flow of funds and interest-price movements in money and capital markets. Supply of loanable funds and demand for funds in mortgage loan market, consumer credit market, corporate securities and municipal obligations. Considers effects on financial markets of Federal Reserve and Treasury policies.

528 Management of Financial Institutions (4) Analysis of objectives, functions, practices, and problems of financial institutions as viewed by management of these institutions.

#### 536 Life Insurance (4)

Fundamental economics of life insurance. Principles and practices of life insurance, including types of contracts, group and industrial insurance, and annuities.

#### 542 Security Analysis (4)

Selection and evaluation of individual securities and industries. Fundamental analysis and determination of intrinsic value based on estimates of payment streams, capitalization rates, and rapidity of price convergence. Technical analysis and study of price-volume, trend following, and crowd psychology.

#### 545 Portfolio Management (4)

Decision-making processes in management of individual and institutional securities portfolios. Theoretical foundations of portfolio selection and construction. Model building and other criteria applicable to selection, risk-return trade-offs, revision, and evaluation of portfolio performance. Applications of computer technology and other quantitative techniques to different aspects of portfolio management.

#### 555 International Finance (4)

Developing skills to deal with variables influencing financial decision making for multinational firm and international business. Foreign exchange rate determination, measurement of exposure, and exchange risk management. Study of strategies of entry in foreign markets and investment analysis of foreign projects. Study of working capital management. Study of institutions, practices, and problems related to financing foreign trade.

# 561 Financial Management and Policy (4) Case study of financial management in business enterprises. Planning current and long-term financial needs, profit planning, allocation of funds, raising funds, dividend policies, expansion and combination, recapitalization and

#### 563 Capital Allocation (4)

reorganization.

Planning capital outlays, ranking investment proposals, theories of financial structure and cost of capital, and approaching investment decisions under conditions of uncertainty.

## 565 Mathematical Analysis of Financial Decisions (4)

Application of quantitative methods to financial management, with special emphasis on systems approach to evaluating proposed financial decisions.

#### 620 Financial Management I (4)

Covers financial analysis, planning, control, and various aspects of long-term financing, including equity versus debt, refunding, leasing, and convertibility.

#### 621 Financial Management II (4)

Involves the application of financial theory and analysis techniques to the major financial decisions facing managers. Topics include financing current operations, capital structure, cost of capital, dividend policy, investment decisions.

# Analysis of conditions in money and capital Markets (4) Analysis of conditions in money and capital markets as they affect business decisions; flow of funds in the U.S.; states; structures of interest rates; role of monetary policy and its effects on financial markets; principal instruments and intermediaries in money and capital markets; analysis of important segments of financial markets.

# 651 Seminar in International Finance (4) Prereq: 8A 685. Addresses advanced topics in international finance from both conceptual and practical viewpoints. Topics include foreign exchange risk management, long-term investment decisions for the multinational firm, home and host country sources of financing (including Eurocurrency and Eurobond markets).

#### 690 Research (3–5)

Methodology, data analysis, and preparation of research findings.

#### 691 Seminar (1-5)

Selected topics of current interest.

#### 693 Readings (1-5)

Readings on topics selected in consultation with faculty member.

#### 697 Independent Research (1–5)

Research under direction of faculty member.

698 Internship (1-5)

## Human Resource Management Courses (HRM)

520 Human Resource Management (4)

Prereq: MGT 200, 202, 300, or 500. Survey of human resource management practices in areas of human resource planning, recruitment, selection, training and development, performance appraisal, compensation, discipline, safety audits, and personnel research. Includes applications in employment law and discussion of interface of line and staff responsibilities in organization.

#### 525 Labor Relations (4)

Prereq: MGT 200, 202, 300, or S00. Study of labor-management relationships, organization campaigns, contract negotiations, grievance procedures, arbitration, and mediation and conciliation. Case studies and class exercises used extensively.

#### 530 Compensation (4)

Human Resource management function of compensation administration. Includes job analysis and evaluation compensation surveys, pay structure design and implementation, benefits administration, and incentive programs.

#### 40 Human Resource Training,

Development, and Research (4)
Topics include new employee orientation,
training needs analysis, training program design,
implementation and evaluation, applied
personnel research methods, and costing human
resource programs.

## 550 Recruitment, Selection, and Appraisal (4) Topics include recruitment planning and

ropics include recruitment planning and strategy, predictors for employee selection, criteria for evaluating job success, validation strategies, equal employment opportunity and affirmative action programs, and design and administration of employee performance appraisal systems.

#### 560 Human Resource Policy, Planning, and Information Systems (4)

Application of human resource strategies, techniques, and constraints through cases, experiential exercise and other projects. Role of human resource information systems as basis for planning and policy decisions.

#### 691 Seminar (1–5)

Selected topics of current interest in human resource management.

#### 697 Independent Research (1-5)

Research involving some human resource management topic. Topic selection and study are under direction of faculty member.

#### **Management Courses (MGT)**

#### 500 Management (4)

Management and organization concepts and theory. Emphasis on integration of concepts, case analysis, and application.

## 530 Management Systems: Decision Making (4) Decision making and problem solving in organizations from a managerial perspective.

#### 540 Organizational Behavior— Micro Perspective (4)

Conceptual framework of behavioral sciences to management and organizations. Motivation and leader behavior within organizational settings.

#### 545 Organizational Behavior— Macro Perspective (4)

Organizational theory and behavior emphasizing formal organizational theory and work group behavior. Concentrates on interaction between organization, its environment, and its members and influence of informal work groups on member behavior.

#### 580 Business Organizations— Change and Development (4)

Examines the theories, concepts and applications relating to change leadership in organizations. The focus is on understanding change models and strategies, resistance to change, and change leadership roles in the context of a dynamic, uncertain and ever-changing external

# 584 International Comparative Management (4) Survey and analysis of similarities and differences in management systems, processes, and styles, as well as evaluation of changes and their impact in selected groups of countries.

#### 586 Business World of Asia (4)

Prereq: 500 or perm. Examines the current business environment of Asia, with a special interest in Southeast Asia. Actual business cases and environmental conditions are examined with sensitivity to the influences of history, culture, religion, political economy, geography and current events. Emphasis is on broad reading, current affairs awareness, and access to global information resources. Students are also encouraged to develop special familiarity with one country, to network for broader understanding, and to pursue research of personal interest.

#### 590 Strategic Business Leadership (4)

The focus of this course is on the executive's responsibility to develop and implement strategic choices that generate superior performance by organizations. Leadership theories are examined in the context of the global competition, technological advances and the growing importance of human capital.

#### 591 Seminar (1–5)

Selected topics of current interest in management and organizational behavior.

#### 691 Seminar (1-5)

Selected topics of current interest.

#### 693 Readings (1–5)

Readings on topics selected in consultation with faculty member.

#### 697 Independent Research (1–5)

Research in selected fields under direction of faculty member.

#### 698 Internship (1-5)

## Management Information Systems Courses (MIS)

#### 520 Business Systems I (4)

Introduction to systems development methods and application development techniques. Lab activities will focus on prototyping systems in a graphical environment.

#### 580 Business Database (4)

Introduction to database design techniques including normalization and entity relationship modeling. Lab activities will focus on implementing databases in a commercial database management system.

#### 620 Business Systems II (4)

Advanced systems development techniques are applied to the creation of a functional prototype of an entire system. Lab activities will focus on prototyping systems using databases and webbased interfaces.

#### 697 Independent Research (1-5)

Research under direction of faculty member.

#### Marketing (MKT)

#### 501 Marketing Principles (4)

Emphasis on practices and problems of marketing manager and environment in which he or she operates, supplemented with business cases.

#### 504 Management of Distribution (4)

Problems encountered by manufacturer in establishing and maintaining effective distribution system, concentrating on channel design and strategies.

#### 520 Services Marketing (4)

Prereq: 501. Reflects the increasing proportion of GNP taken up by the service sector. Included are the recreation industry, government agencies, financial institutions, professional services, and industries which do not sell physical goods as their main offering to the public. Consists of lecture, case analysis, and outside assignments. Students analyze materials and write short reports.

#### 525 Industrial Marketing (4)

Investigation and analysis of problems involved in marketing of industrial products.

#### 541 International Marketing (4)

Marketing problems, opportunities, and organization of multinational firms to serve overseas markets. Government aids and impediments, and a comparison of markets and marketing techniques in U.S. and foreign countries.

#### 544 Consumer Behavior (4)

Individual, social, and cultural influences that affect consumer behavior. Consideration of explanatory and predictive models. F. W. Sp; Y.

#### 550 Management of Promotion (4)

Problem-solving course leading to development and management of firm's promotional mix with emphasis on use of mass media and on stimulation of reseller's cooperation.

#### 558 Sales Management (4)

Principles and practices in planning, organizing, and controlling sales force. Selection, training, compensating, supervising, and stimulating salesmen. Analysis of sales potentials and costs.

#### 579 Marketing Research (4)

Techniques involved in collection, tabulation, and analysis of marketing information.

#### 645 Seminar in Consumer Behavior (4) Behavioral science research as it applies to marketing process.

#### 663 Marketing Strategy (4)

Analysis of preparation and organization of overall marketing plans, and elements of marketing mix. Also developed are merchandising analyses, objectives, and strategies that take into consideration the ever-changing consumer, trade, and legal environment, as well as firm's costs.

#### 690 Research (1-4)

Methodology, data analysis, and preparation of research findings

#### 691 Seminar (1-5)

Selected topics of current interest in marketing area D.

#### 693 Readings (1-5)

Readings on topics selected in consultation with faculty member.

#### 697 Independent Research (1–5)

Research under direction of faculty member.

698 Internship (1-5)

#### M.B.A. Core Courses (MBA)

#### 601 Core I (14)

Prereq: full-time M.B.A. program candidate. Business-related subjects delivered in modular format. Consists of 14 cr hrs of modular units in accounting, financial markets, management, and operations. Units may be added by the faculty team from other 600-level business courses based on the current business environment. Students must take 4 cr hrs of an elective in addition to the 14 cr hrs of business modules. E.

#### 602 Core II (14)

Prereq: 601. Modular content of business-related subjects. Consists of 14 cr hrs of modular units in finance, organizational change, marketing, management, and strategy. Units may be added from other 600-level business courses based on current business environment. Students must take 4 cr hrs of an elective in addition to the 14 cr hrs of business modules. W.

#### 603 Core III (14)

Prereq: 602. Modular content of business-related subjects. Consists of 14 credit hours of modular units in management information systems, marketing, management, and international business. Units may be added from other 600-level business courses based on current business environment. Students must take 4 credit hours of an elective in addition to the 14 credit hours of business modules. *Sp.* 

#### 604 Core IV (18)

Prereq: 603. Modular content of business-related subjects. Consists of 18 credit hours of modular units in organizational behavior, strategy, finance, management, and international business. Units may be added from other 600-level business courses based on current business environment. Su.

#### Operations Courses (OPN)

510 Production/Operations Management (4) Introduction to the management of operations in manufacturing and service industries with emphasis on identifying key problems in the areas of design, planning, and control. The utility of various models and quantitative methods in addressing the problems are illustrated.

## Quantitative Business Analysis Courses (QBA)

#### 500 Mathematical Foundations (4)

Introduction to differential calculus, integral calculus, and linear algebra with economic and business models and application.

#### \$10 Statistical Foundations (4)

Introduction to probability theory, statistical distributions, sampling, estimation, testing, and decision theory for economists and business administrators.

#### 691 Seminar (1-S)

Selected topics of current interest in quantitative business analysis areas.

#### 697 Independent Research (1-5)

Research under direction of faculty member.

## College of Communication

**Radio-Television Building 497** 

Kathy A. Krendl Dean

Eddith Dashiell
Associate Dean

http://www.commcoll.ohiou.edu/

The College of Communication offers a variety of graduate programs designed to provide both academic and professional training. The master's degree is offered by the Schools of Communication Studies, Communication Systems Management, Journalism, Telecommunications, and Visual Communication. In addition, the college has a Ph.D. program in the School of Communication Studies and a mass communication Ph.D. program administered jointly by the Schools of Journalism and Telecommunications. Laboratory opportunities are provided through CATVision, a multichannel dormitory cable service; television station WOUB-TV, Channel 20; radio stations WOUB-AM and -FM; a community cable television channel; a modern electronic graphics lab in journalism; a multimedia lab; and research centers, as well as microcomputer labs, in the various schools. Financial support is available in the form of teaching, research, and graduate associateships in each school. The programs also offer tuition scholarships and a limited number of fellowships.

For detailed information concerning graduate programs and possible financial support, write to the director of graduate studies of the School of Communication Studies, School of Communication Systems

Management, E. W. Scripps School of Journalism, School of Telecommunications, or School of Visual Communication,
Ohio University, Athens OH 45701-2979.

#### **Communication Studies**

For the most up-to-date information on our graduate program, visit our Web site at http://www.inco.ohiou.edu/.

The School of Communication Studies expects its graduates to develop a specialist's depth in the study of human communication as well as a generalist's perspective. Individualized programs of study are emphasized, but all students are required to complete five core courses listed under each degree program.

The school offers M.A. and Ph.D. degrees. Primary areas of study include rhetoric and public culture, health communication, and relating and organizing. Students may select their primary and related areas of study in consultation with their advisory committee and with permission of the School's graduate committee.

Admission to graduate study is granted on the basis of a match between the student's academic goals and the school's primary areas of study, recommendations of those familiar with the student's academic and other work, undergraduate and graduate grade-point average and class standing, scores on the Graduate Record Examination, submitted writing sample, and experiential and other nonformal

learning. International students from non-English speaking countries are required to submit a TOEFL score. International students applying for assistantships should also submit a TSE score.

Students with a strong background in communication studies are eligible to be selected as graduate teaching assistants. Applicants at both the M.A. and Ph.D. levels are considered for assistantships. Graduate teaching assistants serve as instructors in basic courses, assist in teaching advanced courses, help with the forensics program, or join faculty in research projects.

Applications for admission typically are reviewed during January, February, and March. In order for an application to receive priority treatment (i.e., to be among the files receiving initial consideration with respect to both entry and financial assistance), the file should be complete no later than February 1. International applicants are strongly urged to send all their materials in by December 15, as their applications take longer to process. The majority of the decisions are made by April 15. Files received after March 15 are at a significant disadvantage.

Admission is typically granted for the fall quarter. Students wishing to begin studies at a different point during the academic year must petition the Graduate Committee for permission.

#### Master's Program

Earning a master's degree requires that you complete 45 hours plus one of four capstone activities: a thesis, a research paper, a professional project, or master's examinations. Students electing the master's examination option complete all 45 hours in class work. Students electing one of the other three options complete 40 hours in course work with the remaining five hours completed as thesis or research hours.

M.A. candidates must maintain at least a 3.0 g.p.a. in all University work, a g.p.a. of at least 3.0 in all school courses, and no grade below a B- in any course in the program of study.

A maximum of 12 quarter hours of graduate credit with grades of B or better may be accepted by transfer from approved institutions that offer the master's degree, provided the transferred coursework is acceptable to your advisory committee and is not more than five years old. At least 33 hours of graduate credit must be earned on the Athens campus.

All M.A. students are required to take INCO 600 Introduction to Graduate Study, INCO 610 Theories of Communication, INCO 640 History of Rhetorical Theory, one five-credit research methods course approved by their program advisor and committee, and either INCO 618 Seminar in Interpersonal Communication or INCO 630 Organizational Communication.

#### **Doctoral Program**

To be admitted unconditionally, you must have received a bachelor's and a master's degree or completed equivalent work (as approved by the University) at an accredited institution. You must present for evaluation by the graduate committee evidence of your scholarly writing ability. Additional evidence of your ability to pursue study at the doctoral level is required, as documented from previous personal, professional, and academic experiences.

The Doctor of Philosophy requires 72 quarter hours of nondissertation credit beyond the master's degree (or its

equivalent), demonstration of research competency, and completion of a satisfactory dissertation. A maximum of 16 quarter hours of post-master's degree graduate credit with B or better grades may be accepted by transfer from approved institutions that offer post-master's (doctoral-level) work. Transfer work may not be more than five years old and must be acceptable to the student's advisor and advisory committee, the school's graduate committee, and the associate provost for graduate studies. All 16 hours may be applied to the student's primary area; a maximum of eight transfer hours may be applied to the student's related area. At least 48 guarter hours of doctoral credit must be earned on the Ohio University campus. At least three consecutive quarters must be spent in full-time status on the Athens campus.

All Ph.D. students are required to take INCO 600 Introduction to Graduate Study, INCO 610 Theories of Communication, INCO 618 Seminar in Interpersonal Communication, INCO 630 Organizational Communication, and INCO 640 History of Rhetorical Theory.

## Communication Studies Courses (COMS)

## 501 Field Research Methods in Communication (5)

Prereq: 600. Development of research methods such as content analysis, participant observation, Q-analysis, questionnaire design, sampling procedures, case studies, and unobtrusive measures. Y.

510 Cross-Cultural Communication (5)
Analysis of processes and problems of communication as affected by national cultures; effects of differences in languages, values, meaning, perception, and thought. X

512 Principles of Message Analysis (5)
Theory, research, and practice in analyzing
human messages produced in natural settings.
Survey of various coding methods: type/token
ratio, content analysis, discourse analysis, and
relational analysis; application of selected
techniques to previously generated messages.

530 Communication and the Campaign (5) Processes of communication as applied in a campaign, defined as any organizational goal-oriented effort designed to influence behaviors of identifiable population. Emphasizes theory application in nonclassroom campaign situations (political, fund-raising, publicity, etc.). Y.

540 Theories of Argument (4)
Relationship between formal logic and rhetorical
systems of arguments; intensive study of fallacies
and experimental findings related to study of
argument.

## 542 Responsibilities and Freedom of Speech in Communication (5) Ethical and rhetorical implications of const

Ethical and rhetorical implications of constitutional guarantees on political, social, and religious speech; analyses of significant legal cases on freedom of expression. Y.

548 Rhetoric and Electronic Media (5)
This course examines meaning-making via the electronic symbol, verbal and graphic. Classes will alternate between the analyses of theory and close examination of radio, hypertext (online via the World Wide Web and stored on CD-ROM), Email, word processing, and television—especially in contrast to print and speech.

## 570 Effective Classroom Communication for Teachers and Trainers (5)

Prereq: 1 yr teaching K–12. Focuses on interpersonal communication in classroom environment; emphasis on communication between students and teachers. Taught in seminar format at regional campuses only during summer session. Y.

## 571 Nonverbal Communication for Teachers and Trainers (5)

Covers nonverbal behavior of teachers and trainers in the classroom. Messages communicated by the classroom environment and how the environment shapes students' learning patterns are also covered. 5mall group activities to develop greater sensitivity to nonverbal communication are provided. Readings. Taught in seminar format at regional campuses only during summer session. Y.

#### 572 Communicating in Your Workplace: Strategies for Teachers and Administrators (5)

Focuses on the problems of communication within an education-oriented organization. Particular emphasis on elements that help or delay the adoption of change, conflict management, and practical knowledge and skill for communicating successfully in an educational setting. Taught in seminar format at regional campuses only during summer session. Y.

#### 573 Effective Listening and Small Group Communication for Teachers and Trainers (5)

Focuses on steps to more effective listening and working in small groups for teachers and trainers. Familiarizes teachers and trainers with the keys to active listening, the stages of group development and decline, how to manage groups, and improve their cooperation and productivity. Taught in seminar format at regional campuses only during summer session. Y.

## 574 Family Communication for Teachers and Trainers (5)

Explores issues of family communication for classroom teachers and organizational trainers. The definitions and nature of contemporary families are explored. Children's view of the family and peer relationships are highlighted. Conflict, stress, decision making, and problem solving are discussed. Special activities for the teacher and trainer are provided. Taught in seminar format at regional campuses only during summer session. Su; Y.

## 575 Instructional Communication Assessment for Teachers and Trainers (5)

Examination of test construction and grading practices, procedures, and formats. Analysis of underlying assumptions and philosophies of assessment in teaching and training. Emphasis on the alignment among objectives, testing practices, and evaluation procedures. Taught in seminar format at regional campuses only during summer session.

#### 576 Children's conflict and Mediation for Teachers and Trainers (5)

This course focuses on the design and implementation of peer dispute mediation programs within elementary and secondary school systems. Course content includes discussion of chidren's communication development and development of conflict management ability, the rationale underlying and challenges involved with implementing peer mediation programs, and approaches to training youngsters in mediation and conflict management communication skills. Taught in seminar format at regional campuses only during summer session.

- 577 Communicating with Diverse Students (5) This course is taught in seminar format and is designed to explore issues relevant to enhancing communication competence and effectiveness between individuals of diverse backgrounds. Specifically, this course will address interactions between people from a variety of cultural backgrounds, including gender, age, religious, geographic, ethnic, or racial differences. The focus will be on examining the impact of variables such as communication. Students will have the opportunity to explore the underlying patterns which influence their own, as well as others' communication behaviors, and discuss strategies to improve understanding of and appreciation for differences. Taught in seminar format at regional campuses only during summer session.
- 600 Introduction to Graduate Study (5) Definition of field of communication, methods of structuring field, and research concerns within areas of field. Examination of theory and function of research. Analysis of representative types and methods of research. Y.

#### Measurement Methodology in Communication (5)

Measurement principles, instruments, and techniques in communication; problems and procedures in testing, measuring, and evaluating communicative attitudes and skills; development and availability of relevant standardized tests. Y.

- 610 Theories of Communication (5) Survey of contemporary communication theory. emphasizing cross-disciplinary contributions to such theory. Y.
- 611 Language and Symbol Systems (5) Role of verbal and nonverbal signs and symbols in communication. Emphasizes human symbolizing capabilities and relationships between symbolic structures and physical reality.
- 612 Communication in Social Conflict (5) Roles of communication in conflict and conflict in communication. Communication strategies for reducing or managing conflict in social situations, Y.
- 613 Communication and Persuasion (5) Process of communication and attitude change, survey of general theories and typical research, analysis of contemporary persuasion.
- 614 Negotiation and Mediation (S)

Explores communication dynamics involved in negotiating and mediating interpersonal and organizational disputes. Examines research and ethical issues relevant to communication within the contexts of negotiation and mediation.

61B Seminar in Interpersonal Communication Provides advanced graduate students with opportunity to identify and analyze basic components of dyadic communicative system including multivariate nature of both relationships and effects. Y.

- 620 Nonverbal Communication (5) Survey of major theories and research areas in field of nonverbal communication. In-depth
- analysis of research in areas of student interest.
- 621 Gender and Communication (5) Prereg: 600 or equiv. Explores variations in communicative behaviors related to biological sex and psychological gender. Examines female and male communication in intrapersonal, interpersonal, small group, public, and organizational settings. Y.
- 622 Communication in the Family (5) Prereq: 600 or perm. Examination of the communication concepts that are basic to understanding interaction in the family. Provides a framework for analysis of family communication. Explores communication issues that relate to conflict, power, intimacy, and the development of relationships. Presents a model of effective communication in the family. Consideration of verbal and nonverbal communication behaviors. Y.

#### Seminar in Instructional Communication (5)

This course provides graduate students with an overview of the impact of communication in the classroom. Specifically, this course focuses on the dynamics of communication and how this influences student outcomes (e.g., learning, motivation) as well as instructor outcomes (e.g., efficacy, job satisfaction).

- 630 Communication in Organizations (5) Introduction to organizational communication. Specific objectives include development of historical progress, examination of major research issues such as information flow, network analysis, communication overload and underload, exploration of theoretical foundations in organizational decision making, superior-subordinate communications, organizational effectiveness, and change processes. Y.
- 631 Communication Audits in Organizations (5) Examination and discussion of literature covering methods of assessing communication in organizations. Designed to give students practical skill development through actual assessment, data analysis and interpretation, and client report

#### Instructional Training and Development in Communication (5)

Includes philosophies of organizational development; theories of instructional design, emphasizing stages of planning implementation, and evaluation; and communication training skills, including needs assessment and evaluation, writing objectives, application of communication content, and selection of instructional modes and resources—all investigated within business, professional, and governmental organizational

- 640 History of Rhetorical Theory (5) Covers main concepts and principal figures in the history of rhetorical theory. Begins with classical Greece and ends with postmodernity. Y.
- 641 Rhetoric, Culture, and Social Critique (5) Course takes a specific theoretical approach to the critique of rhetoric as expressed in and by contemporary culture. The goal will be to explore the rich variety of rhetorical expression current in our lives. The reading list will encompass such topics as the critique of hate speech, the critique of whiteness, as well as focus on the discourse of African American, Native American, Latina/Latino cultures. While not an exhaustive list, these and similar cultural groups will be the focus of inquiry. Student projects will focus on one or more of the areas

of inquiry with a goal of understanding and critiquing the role of rhetoric in the perpetuation and alteration of a culture.

#### 642 Modern Rhetoric (5)

Aims, tasks, and significance of rhetoric in relation to human communication processes. Distinctions among speculative, critical, canonical, and performative perspectives in rhetorical inquiry.

#### 643 Religious Rhetoric (5)

Pulpit oratory examined through analyses of selected clerics including Luther, Wesley, Whitefield, Beecher, Brooks, Fosdick, Sunday, Graham, and others. Rhetorical analysis of revivalism, camp meetings, social gospel, and ecclesiastical and polemic debates.

- 644 The Rhetoric of Protest and Reform (5) Rhetorical analysis and criticism of speaking during reform and revolutionary protest movements. Selected areas include American Revolution, antislavery debates, Populists, Progressives, labor unrest, women's rights, and civil rights agitation.
- 645 The Rhetoric of the World Wars (5) Analysis and criticism of wartime communication, its principal modes, techniques, media, and effects. Theory and practice as reflected in WWI and II.
- 646 Analysis and Criticism of Legal Rhetoric (5) Analysis and criticism of principal modes, types, and styles of western legal rhetorical communication as mirrored in selected cases, jurists, attorneys, decisions, and arguments, with western legal communication studies as unique mode of rhetoric focusing upon English-American jurisprudence and courtroom advocacy. Case study method employed. Critical analysis accomplished.
- 647 Analysis and Criticism of Political Rhetoric (5) Analysis and criticism of principal modes, media techniques, and effects of western political rhetorical communication. Theory and practice as reflected in major campaigns, administrations, and movements in both open and closed societies.
- 650 Foucault, Discourse, and Social Change (5) The overarching goal of this seminar is to develop a clearer sense of what it means to have rhetorical agency in a postmodern world. In moving toward that goal, we will interrogate Foucault's work that bears on the themes of discourse, knowledge/power, subject, and space. While not an exhaustive account of Foucault's work, the literature to be examined will provide a sufficient grounding in Foucault's project to allow for critical assessment of the strengths and weaknesses of his perspective as it relates to the problem of rhetorical agency.

#### 690 Independent Study (1-15)

Readings on special problems under planned program approved by advisor. Projects must be approved prior to registration.

#### 691 Internship (1-15)

Prereq: written proposal and perm. Experience in communication-related activities in organizational environments.

#### 694 Research (1-12)

Prereq: perm. Individual research on special problems. Projects must be approved prior to registration.

#### 695 Thesis (1-15)

701 Research Designs in Communication (5) Nature and selection of communicative research problems; development of strategies, techniques, and appropriate designs; critical evaluation and development of experimental and descriptive procedures. Y.

702 Communication Historiography I (5)
Prereq: 600. Bibliographic, analytical, and
interpretive skills for dealing with published
primary source materials, including letters,
speech texts, and audiovisual recordings in their
historical contexts. Designed to help students
become skillful library users, situate a research
problem in context, and analyze primary
historical materials. Y.

703 Communication Historiography II (5)
Prereq: 702. Techniques for research using archival material: transcripts, unpublished speeches, letters, diaries, artifacts (e.g., scrapbooks, museum exhibits), memoirs, manuscripts. Readings exemplify a variety of historical philosophies. Students research an original problem of their own definition within the theme of the quarter; the writing of conference papers is encouraged. Course builds on the pedagogical skills introduced in 702 by developing the ability to critique bibliographies, argumentation, and prose style.

#### 704 Qualitative Research: Ethnography of Communication and Conversational Analysis (5)

Provides students with an understanding of how to conduct communication research projects using two qualitative research methodologies that stress the collection and analysis of naturalistic data—ethnography of communication and conversation analysis. Students will learn to design and implement communication studies using ethnography of communication and conversation analysis.

## 710 Communication and Information Diffusion (5)

Analysis of major approaches to data and information diffusion systems on local, regional, national, and international levels. Emphasis on acquisition analysis and dissemination of data as information, including critical points of interface and interaction between a system and its users. Y.

#### 720A Relationship Initiation (5)

Exploration of theories and research concerning the interactive (i.e. communicative) processes involved in initiating interpersonal relationships.

#### 720B Relationship Maintenance (5)

Exploration of theories and research concerning the interactive (i.e. communicative) processes involved in maintaining interpersonal relationships.

#### 720C Relationship Termination (5)

Exploration of theories and research concerning the interactive (i.e. communicative) processes involved in terminating interpersonal relationships.

- 721 Communication Process in Small Groups (5) Theory and research in group social system, group modification of individual judgment, leadership styles, group vs. individual goals, and intragroup lines of communication in small problem-solving and learning groups.
- 722 Listening Behavior: Theory and Research (5) Analysis and evaluation of listening process in terms of theory, research, and operational characteristics.
- 730 Communicative Process in Organizations (5) Prereq: Ph.D. student. Interaction between organizational structure and communication within organizations. Emphasis on theoretical and methodological analysis. Primary focus on conducting major research project.

## 733 Organization Communication Consulting: Foundational Perspectives (5)

Prereq: Ph.D. student. A focus on theoretical perspectives to organizational communication consulting and organizational development. Re-

view of theory and research on communication training, consulting practices, communication variables involved in the client/consultant relationship, as well as intervention techniques.

#### 740 Rhetorical Criticism (5)

Theories and methodologies of selected modern critics. Exploration of interdisciplinary dimensions in criticism of rhetorical interactions. Class and individual projects. Y.

#### 742 Feminist Rhetorical Theory (5)

This course will begin with an examination of what it means to "write women into the history of rhetoric." This examination will provide the backdrop for an initial "historographical" approach to women's contributions to rhetorical theory. Beyond this initial focus, the course will examine recent developments in feminist theory that impinge on or work from an understanding of rhetoric. As such, the course cuts across both historical and theoretical boundaries mapping the space for a feminist rhetoric.

745 Rhetoric and Popular Culture (5)
Seminar exploring the relationship between rhetoric and popular culture. Surveys major theoretical approaches (i.e., cultural studies, interpretivism, and genre) and emphasizes the application of theory through writing and criticism.

780 Topics in Communication (1–5) Communication topics of interest to faculty and students not covered by regular classes. Each offering will consider a different topic on onetime-only basis. May be repeated. Y.

790 Interdisciplinary Seminar (3-12)

#### 794 Research (3-12)

Prereq: perm. Individual research on special projects. Projects must be approved prior to registration.

895 Dissertation (1-24)

#### Communication Systems Management

http://mcclureschool.info/graduate/

The J. Warren McClure School of Communication Systems Management offers the Master of Communication Technology and Policy, a professional interdisciplinary degree focusing on the technical, policy, and strategic issues related to telecommunication and information technologies, systems and services. Principal focus is on the voice and data networks, with special emphasis on the interaction of technology and policy issues in the successful design, deployment, and operation of complex networks and information systems.

Technology topics includes network theory and infrastructure, quality of service, network assurance and security, network services and IT integration, broadband, and wireless communications. Policy includes government regulation, competition and market structure, international telecommunications,

telecommunications and economic development, and social/ethical issues.

Perspectives include those of network system and service providers, consumers, policy makers, and managers. Industry perspectives include telecommunication carriers, communication system equipment vendors, and enterprise voice and data network providers. The program is geared towards completion within one year of residence at Ohio University in Athens, Ohio.

Core courses provide a background in both technology and policy. By the end of the first quarter of enrollment, students select one of two telecommunication and networking system tracks (technology or policy) and design with their advisor specialty and cognate coursework to meet the students' educational and career objectives.

#### **Admissions**

Decisions regarding admission to the MCTP program will be made by the McClure School of Communication Systems Management's Graduate Admission Committee. Full admission to the MCTP program will be based on the following criteria:

- A baccalaureate degree from an accredited college or university, with sufficient undergraduate course work to constitute at least a minor in Communication Systems Management, Computer Science, Management Information Systems, Engineering, Economics, Public Administration, Political Science, or related areas deemed relevant by the Graduate Admissions Committee
- A cumulative grade-point average (GPA) of 3.0 or higher (on a 4.0 scale) earned for all undergraduate or graduate course work.
- Graduate Record Examination (GRE) General Section; or the Graduate Management Admissions Test (GMAT).
- A completed application form, including the applicant's Personal Goals Statement.
  - Resume
  - Three (3) letters of recommendation.

• Further information as necessary; the Graduate Admission Committee may request a personal interview if additional information about the applicant is required.

It is possible for applicants to substitute professional experience for completion of course work in the relevant areas listed above. Applicants who meet the above requirements, except for course work in Communication Systems Management, Computer Science, Management Information Systems, Engineering, Economics, Public Administration, Political Science, or another relevant area, can demonstrate preparation for study in this field by having completed at least three years of professional experience in which the applicant performed tasks or duties covered by the MCTP curriculum. Applicants demonstrate this experience by submitting a job description that will be reviewed by the Graduate Admission Committee to determine its relevance and adequacy.

Conditional admission to the MCTP program is possible for applicants who have neither relevant course work nor professional experience, and for applicants lacking a 3.0 GPA. Those applicants who cannot demonstrate preparation for this field of study through relevant course work or professional experience, but who meet the other admission criteria, may be granted conditional admission to the program, if one of the following two criteria is met:

- Applicants must agree to complete 12 undergraduate hours of Communication Systems Management course work, consisting of COMT 220 (Systems and Applications I), COMT 222 (Systems and Applications II), and COMT 302 (Fundamentals of Common Carrier Regulation). Upon completion of these 12 hours of course work, with a cumulative GPA of 3.0 or higher, the applicant will attain full admission status.
- Applicants having substantial relevant industry experience not meeting the 3.0 coursework requirement, but meet the other admission criteria may be granted conditional admission to the program.

Upon completion of the first three courses in the core curriculum (COMT 600, COMT 602, and COMT 625), with a cumulative GPA of 3.0, the applicant will attain full admission status.

The graduate director will screen applications to determine if the minimum requirements for admission to the program have been met. These requirements include: a minimum 3.0 GPA on a 4.0 scale for full admission, submitted scores for the GRE or GMAT, and if an international student, TOEFL scores. There is no minimum GRE/GMAT or TOEFL scores, however these scores will be considered as part of the entire application. To be considered for financial assistance, international students must have high TOEFL scores.

The final screening is done by the graduate committee which ranks qualified candidates based on academic record, professional experience, GRE/GMAT, recommendations, and in the case of international students. TOEFL scores. The graduate committee makes all applicant acceptance (full or conditional) and applicant rejection decisions. Decisions are made on a rolling basis; however for those desiring full consideration for financial assistance, applications should be received by December 15th (International students) or as late as February 1st (US citizens or permanent US residents) for a Fall Quarter entrance into the program. For those not seeking financial assistance, admissions are rolling—U.S. citizens should apply at least six weeks prior to the beginning of the quarter; and international applicants should apply six months prior to the beginning of the quarter they wish to enter.

#### Requirements

Students are awarded the degree after the successful completion of core, specialization, cognate, and culminating experience courses (10 courses total, 50 credit hours).

Core courses ensure the student is well versed in both the technology and policy aspects of communication network and information systems, telecommunication carriers, and

enterprise voice and data networks. Specialization courses are geared towards establishing either communications technology or policy as the student's principal area of expertise. Cognate courses are intended to enrich and focus further the student's interests and expertise by pursuing related coursework outside the School of Communication Systems Management. It is expected that students electing the policy specialization will select cognate courses from finance, management, marketing, economics, interpersonal communication, political science, and policy in other schools. Students electing the technology specialization will select cognate courses from electrical engineering and computer science, and technology in other schools.

The culminating experience course is one of the following: project, comprehensive examination, or thesis. Students selecting a professional project are expected to identify a specific project relevant to this field of study. Students are then expected to research relevant literature, identify specific problems or issues involved, identify and examine available alternatives, select the optimal alternative explaining why it is optimal, and produce a wellwritten, coherent report detailing all aspects of the project. Those selecting the comprehensive exam will complete an additional course such as an advanced readings course, or an additional course in the student's area of specialization. The questions for the comprehensive examination will be based upon subject matter covered in the MCTP courses, cognate courses and on a specified list of readings. Students electing to write a thesis are expected to identify a significant technical or policy problem or question (depending upon the student's specialization), to do a thorough literature review of material relevant to the topic, to formulate an appropriate research approach to the problem, to collect and analyze data, to draw pertinent and defensible conclusions, and produce a well written, coherent thesis. It is expected that the student will apply a theory or theories to specific questions or problems.

## Communication Systems Management Courses (COMT)

#### 505 Competition and Market Structure in Network Industries (5)

An examination of the development of competition in communication network industries, exploring the impact of competition on managerial decision making, market outcomes, and policy goals. Special emphasis is placed on the study of monopoly and oligopoly market structure and how management behavior is constrained in markets that are characterized by monopoly and oligopoly. Economic theory is used to provide answers to these questions. Addresses emerging antitrust issues in software and Internet markets; the use and appropriateness of market mechanisms to allocate radio-frequency spectrum in the public airwaves; price and non-price mechanisms to address congestion in data networks; and unique problems relating to the introduction of competition into the long distance market, specialized niche markets, and the local exchange market.

507 International Communication Networks (5)

Critical review of the major issues involved in global communication networks and services. Examines the ways in which individual nations have chosen to deploy communication infrastructure and services; this examination includes the study of specific nation's communication industry and market structure, regulatory framework, technical constraints, pricing and tariff issues. The course also analyzes the impact that trade is having on the regulation and deployment of communication technology and services. International organizations like the World Trade Organization, the International Telecommunications Union, Intelsat, Inmarsat, and the European Union, and their importance to communication networks and services are also studied.

## 509 Communication and Economic Development (5)

An examination of economic development issues and potential telecommunications strategies to assist in solving development problems. The problems of less developed countries will be studied, as well as the potential impact of communication networks and services on development in undeveloped pockets of the developed world. The course will also examine urban ills that exist in the developed areas of developed countries and will explore the potential role of communication networks to implement solutions to these urban ills. The course will also explore the potential role of communication networks on the development of global markets in the service sector and the impact of this trend on both developed and less developed nations.

520 Emerging Communication Technologies (5) An analysis of the latest advances in voice and data communication technologies, including the latest developments in transmission and switching, broadband network design and management, the latest protocol standards, and architectural developments in distributed computing and databases. The impact of new developments on network design, management, and administration is also addressed.

#### 539 Communication Technology Lab Practicum (5)

An extensive hands-on experience in voice and data communication technologies. Students analyze problems of both a managerial and a

technical nature through extensive lab exercises. The course involves hands-on experience in posing, validating, and analyzing problems in switching and transmission technologies, network design, internetworking, protocol issues, distributed databases, and network management.

#### 600 Research Methods in Communication Technology and Policy (S)

Provides an overview of the field and introduces the students to the fundamentals of research, including the steps involved in identifying a research problem, how to formulate a problem statement; selection of appropriate research methodologies, accumulating and analyzing relevant empirical data, writing research results. The course will explain and analyze various research methods and tools, both quantitative and qualitative. Students will be required to use mathematical software (e.g., SAS, SPSS, Mathematica, LIMDEP, CPLEX), will learn optimization and data analysis techniques, and will also be exposed to content analysis, casestudy analysis, interviewing techniques, and survey methods.

#### 602 Regulation and Policy for Communication Networks (5)

Introduction to the major theoretical and legal issues and debates that have shaped the communication network industry. Students will examine issues of anti-trust, common carrier regulation, and public utility law and will examine their impact on market outcomes and policy goals. The course also examines the impact of competition on the industry and its regulation.

#### 603 Advanced Topics in Telecommunications Policy and Regulation (5)

An advance exploration of advanced topics in telecommunications policy and regulation in the United States. Emphasis will be on primary sources, e.g., FCC and State Public Utility Commission Orders, appellate court decisions, and other documents. This elective course will build on the foundation provided by the required course, COMT 602. Subject matter will include state and federal activity related to local competition, access charge reform, regulation of broadband services, and spectrum management.

#### 614 Advanced Readings in Communication Technology (5)

Requires extensive reading, under the direction of a faculty member, in such issues as voice and data network design; traffic analysis and performance monitoring of networks; capacity and routing issues; protocol stands in LAN, WAN, and high speed networks; internetworking issues; design and protocol issues in wireless networks; compression schemes; network security standards; network management standards; speech recognition; distributed database design and optimization; and computer telephony integration.

## 615 Advanced Readings in Communication Policy (5)

Focuses on topical readings under the direction of a faculty member. In addition to the readings selected by the faculty member, students are required to do further research in a specialized area of interest to the student.

#### 625 Information Networks (5)

Introduction to the architecture of information networks and the applications built on this architecture. Students study the fundamental concepts of communication networks, switching techniques, transmission systems, protocols, and

distributed applications. Voice, data, image and video communication networks are all addressed.

## 629 Theory of Network Management and Design (5)

Covers the mathematical concepts of performance analysis and the design of data and voice networks. The course deals with queuing theory; performance modeling and simulation of data and voice networks; topology design of networks; capacity and channel allocation issues. Students will learn the theoretical and practical implications of various network management design problems and will analyze network and protocol simulations and performance issues.

#### 644 Strategic Issues in Communication Technology and Policy (5)

Employs extensive readings and illustrative case studies in the analysis of the strategic concerns involved in the successful deployment of voice, data and information technologies and services within user organizations and by vendor enterprises. The successful deployment of these technologies and services requires an understanding of the interplay of an array of policy considerations, technical concerns, human and social issues; this course provides students with the opportunity to grasp the interplay of these concerns and issues.

679 Theory of Communication Networks (5) Provides the theoretical basics of information transfer and processing. Students learn the different algorithms and techniques of data, video, and image compression; they also discuss topics related to design and management of networks, as well as computer security issues. Specific topics addressed include communication theory, encoding techniques, wireless transmission issues, data, video, and image compression standards and algorithms, authentication and encryption standards and algorithms.

#### 685 Professional Project (5)

This course requires students to complete an applied project, under the supervision of an advisor and a faculty committee, as a demonstration of the student's mastery of the skills and knowledge covered in the program.

#### 691 Topical Seminar (5)

A focused, in-depth analysis of a significant current communication policy concerns. Students conduct a literature search of the policy issues surrounding the specific topic, develop a historical context for the issue under discussion, and produce a substantial paper analyzing an important aspect of the topic. Topics for the course will be current issues involving significant policy discussions. Potential topics include universal service/universal access to advanced technologies, the impact of regulatory change on service quality, and the issue of cost recovery by incumbent service providers.

#### 695 Thesis (5)

Requires students to identify a problem or issue in the field, conduct relevant research, and write a thesis resulting from this work. The thesis provides students, working under the supervision of an advisor and a faculty committee, with an opportunity to demonstrate mastery of the field.

#### **Journalism**

http://www.scrippsjschool.org/

The E. W. Scripps School of Journalism offers a Master of Science degree and, in cooperation with the School of Telecommunications, a Doctor of Philosophy degree in mass communication (see following section).

Admission is based on your academic and professional background. To assist the school in evaluating your qualifications, you must submit your scores on the Graduate Record Examination, a resume, three letters of recommendation, official transcripts from all colleges attended, and a statement of 500 words or less about why you want to attend graduate school. International students from non–English speaking countries are required to submit a TOEFL score. You need not have an undergraduate major in journalism.

International students should apply as early as possible. All applications for financial aid are due February 1.

The master's program is designed to provide opportunities to study professional journalism or prepare for further academic work. Required coursework in both areas is a blend of professionally oriented classes with mass communication principles, theory, and research.

The flexibility of the program allows professionally oriented students to specialize in newspaper, magazine, or broadcast journalism; public relations; advertising; or visual communication. The master's program requires 49–53 hours and usually takes 15–18 months for completion. Required courses are:

Master's Degree Core: JOUR 501, 511, 512, 803, and 806.

Advanced Research (choose one): JOUR 808, 811, 816, 821, or 830.

Topics Seminar (choose one): JOUR 635, 812, 813, 814, 815, 850, 866, 871, or 880.

Research (choose one): A thesis, for six hours' credit, involving a carefully designed research project conducted in the traditional academic format; a professional project of publishable quality, for six hours' credit; or a readings option for one hour credit. Students electing the readings option

must complete an additional nine hours of 800-level coursework in journalism beyond the core, advanced research, and topics seminar requirements.

In addition, you are required to take undergraduate reporting, editing, and graphics if you have not previously taken such courses. Credit toward the required 49–53 hours will not be earned for these courses. A graduate electronics publishing course may be substituted for the graphics course.

Some required courses may be waived if you present evidence that you have completed equivalent coursework or have equivalent professional experience. If required courses are waived, other graduate courses must be taken to make up the number of hours.

You are required to maintain an accumulative grade-point average of at least 3.0. Only graduate credits with a grade of B- or above will count toward a degree.

#### Journalism Courses (JOUR)

501 Introduction to Graduate Study (1) Required of all new graduate students. F; Y.

507 Electronic Publishing (4)

Prereq: 221, 231. Introduction to the production, design, and techniques of electronic publishing using a journalistic approach. Explores many software packages for electronic publishing using Macintosh computers and provides experiences to develop a thorough knowledge of electronic publishing. F. W. Sp., Su; Y.

- 511 Newspaper and Communication Law (3) Principles and case studies in Communication law, constitutional guarantees, libel, privacy, contempt, privilege, copyright, and government regulatory agencies. F, W, Sp, Su; Y.
- 512 Ethics, Mass Media, and Society (3) Ethics and social responsibility of journalists or other mass communicators. Professional codes, responsibility of media for social change, reaction to political and economic pressures. *F, Su; Y.*
- 514 Fundamentals of Online Journalism (3) Prereq: perm. Selecting, editing, writing, and formatting content for Web-based media. Evaluating and criticizing online journalistic practices. *D*.
- 515 Advanced Online Journalism (3)
  Prereq: 514 or perm. Development and production of a news site incorporating audio, video, and text formats. Stress on newsgathering and presentation skills in an online media environment. Repeat with perm, max 6 hrs. D.
- **521 Graphic Production Processes (5)** Advanced study of all processes for reproducing printed communication. Theory and lab. *D.*
- **522** Advertising Production (4) Techniques and problems in methods of advertising production. *E*

530 Magazine Editing and Production (4)
Prereq: 221. Theory of magazine editing,
production, and publishing with lectures on
various types of magazines available today and
analysis of audiences they serve. Formulas for
publishing, editorial content, and article
selection; illustration and layout; and technical
procedures including sales. Each student prepares
a dummy magazine of his or her own design.
F. W. Sp., Su; Y.

#### 531 Magazine Editing and Production Practice (3)

Prereq: 430 or 530. Practice course in which students apply their knowledge to production of magazine published by School of Journalism. Each student assigned specific position on magazine. F. W., So; Y.

532 Specialized Business Magazines (4) Prereq: 531. Career opportunities in magazine journalism revealed by in-depth studies of professional, business, and industrial magazines. Course considers publishing problems through case studies. F; Y.

535 Picture Editing (3)

Same as VICO 535. Principles and practices of picture editing. Includes consideration of picture sources, assignment, and handling; photographic techniques and aesthetics; legal and ethical factors; visual idiosyncrasies of various media. D.

- 536 Advanced Picture Editing (3) Prereq: 535. Continuation of 535. D.
- 541 Magazine Feature Writing (4) Writing and marketing factual magazine feature articles of various types. Finding subjects, researching, writing articles, and surveying markets. F. W., Sp., Su; Y.
- 542 Advanced Magazine Feature Writing (3) Writing and marketing magazine articles. Emphasis on specialized markets and new trends in industry. Students attempt actual assignments for magazines nationwide. W, Sp, Su; Y.
- 543 Advanced Magazine Editing (3)
  Prereq: 531. Students edit real manuscripts, from the how-to to personal narratives. They learn to recognize weaknesses, devise solutions, and interact with writers. Ethical dilemmas posed by more experimental forms of magazine journalism also are covered. *Sp; Y.*
- **550** Advertising Copy Writing (3) Effective persuasion in print and broadcasting. *F, W, Sp,* Su; Y.
- **552 Broadcast News Producing (3)** Principles and practices of TV newsfilm production and editing. *F, W, Sp; Y.*
- 555 Seminar in Broadcast News (3) Discussion of problems—operational, social, economic, legal, and ethical—faced by broadcasters reporting public affairs. F, W, Sp; Y.
- 558 TV News Practice (4)
  Prereq: 552. Practicum in preparation and presentation of TV newscasts. Students select news material including video, format, and script for newscast, then deliver on air. Students rotate through various newsroom positions during quarter. F. W. Sp; Y.
- 559 Advanced TV News Practice (3) Prereq: 552, 558. Advanced practicum in preparation and presentation of TV newscasts. Students involved in selecting, editing, scripting, and formatting for on-air newscasts. Students also appear on air and assume management responsibilities. F. W. Sp; Y.
- 561 Specialized Journalism (3) Seminar approach to individual study of journalistic areas of special interest to individual students. D.

#### 564 Reporting of Public Affairs (3)

Problems of preparing in-depth, interpretative, and analytical reports on public affairs for mass media, governmental reporting, and contemporary controversial issues. F. W. Sp.; Y.

#### 565 The Editorial Page (3)

Editorial page in opinion information. Problems of content selection and presentation. Extensive writing of analytical and persuasive editorials and interpretative articles in depth. F, W; Y.

#### 566 International Mass Media (4)

Development and operations of world mass communication channels and agencies. Comparative analysis of media, media practices, and flow of news throughout world. Relation of communication practices to international affairs and understanding. F; Y.

#### 567 Foreign Correspondence (4)

Prereq: 231. Graduate course in advanced international reporting for those who have lower-level reporting classes or experience. Past and current status of how U.S. media report from abroad is studied. Selected students eligible for internships abroad. W: Y.

#### 568 Column Writing (3)

The study of newspaper columnists, past and present, with extensive writing of various kinds of columns. Davis, Lambert; Sp; Y.

#### 570 Sportswriting (3)

A look at sports writing from lead to 30—the good, the bad, and the ugly of life in a sports press box. Course builds on newswriting and editing skills. Offers advice on the art of sportswriting and assignments to practice the art by covering live events. F; Y.

#### 571 Public Relations Principles (4)

Prereq: perm. Using contemporary case studies, all aspects of public relations are studied and analyzed in group discussions and written projects. Heavy emphasis on participation in class discussions. F. W; Y.

#### 572 Advanced Public Relations (4)

Prereq: perm. Planning public relations programs and projects, including selection of audiences, messages and media, and evaluation of effects. Project in area of student's interest. W, Sp; Y.

#### 577 Promotional Media (4)

Prereq: 12 hrs. grad study. Overview and professional projects concerning media sales and promotion management.

#### 581 Print Media Management (3)

Problems in publishing affecting all departments. D.

## 582 Advertising Management (4) F, Sp; Y.

## Supervising School and College Publications (4)

Conference course for advisors of high school and college newspapers, magazines, and year-books. Problems relating to staff selection, content of publications, copy, layout, photography, printing, advertising, and business phases. D.

#### 585 Journalism in the Secondary School Curriculum (4)

Prereq: 9 hrs journalism. Intensive study and analysis of appropriate content for high school journalism courses. Planning course outlines and curricula. *D*.

#### 586 Advertising Campaigns (5)

Thorough understanding of basic elements of advertising campaigns. Includes creation of campaign. F. W. Sp; Y.

#### 601A Graphics of Communication (5)

Creative and practical aspects of typography, layout, and design of printed communication. Does not count toward M.S. or Ph.D. F. W. Sp., Su; Y.

#### 601B News Reporting (4)

Prereq: typing proficiency and English proficiency exam. Methods of gathering and evaluating news and writing typical news stories. Practice work in covering assignments and preparing copy. Does not count toward M.S. or Ph.D. F. W. Sp., Su. Y.

#### 601C News Editing (4)

Prereq: B or better in 6018, English proficiency exam. Copyreading, headline writing, news selection, and layout of newspages. Does not count toward M.S. or Ph.D. F, W, Sp, Su; Y.

#### 601D Advertising Principles (5)

Major factors in development of advertising programs. Does not count toward M.S. or Ph.D. *E. W. Sp. Y.* 

#### 601E Photojournalism (3)

Prereq: English proficiency exam or 601B. Basic principles and practices of photojournalism for newspapers, magazines, and television. Includes consideration of roles of photographers and picture editors in communication and their relationships with other members of editorial team and mechanical departments of publications. Students shoot, process, and print pictures on assignment. Does not count toward M.S. or Ph.D. F, W, Sp; Y.

#### 635 Seminar in Picture Editing (3)

Study of picture editing practices in newspapers, magazines, and television. *Sp; Y.* 

## 662 Graduate Internship (1–15) E. W. Sp. Su: Y.

#### 665 Professional Project (1-15)

Professional project for students not choosing to do a thesis. Requires a research chapter. *F, W, Sp, Su; Y.* 

## 691 Research in Journalism and Communications (1–15)

F, W, Sp, Su; Y.

#### 695 Thesis (1–15)

F, W, Sp, Su; Y.

#### 790 Independent Study (1–4)

Prereq: written proposal. Student can pursue personal scholarly interests under faculty supervision. F, W, Sp, Su; Y.

#### 792 Seminar (3-5)

Selected topics of current significance. May be repeated with different topics. F, W, Sp, Su; Y.

#### 795 A, B, C Journalism Teaching Seminar (1) Study of teaching theories and methods applicable to those teaching in the journalism and mass communications field; max 3 hrs. credit.

803 Seminar in Mass Communication Theory (5) Communication process, interpersonal and mediated, and possible barriers to effectiveness. Review of literature on effects of mass communication on individuals and groups, contrasting channels, and message structures. Media as social and economic institutions. Cooper, Riffe; F, W; Y.

#### 806 Research Methods (5)

Techniques for study of communication content, message sources, audiences, and effects. Greenwald, Riffe; F, W; Y.

#### 808 Legal Research (4)

Prereq: 511. The study of the legal literature relative to First Amendment, including that involving speech, the press, broadcast, and the broad area of social and political communication. Each student learns to use legal reporters and documents. Electronic searching and Shepardizing are taught. Each student prepares an extensive legal bibliography in a First Amendment area of interest. Evarts, Hodson; D.

## 811 Historical Research in Journalism (5) Research in mass communication history,

Research in mass communication nistory, individual projects and readings, application of historiographic methods. Stewart, Washburn; W, Sp; Y.

## 812 Government and Mass Communication (4) Communication and political order. Theory and

structure of democratic and totalitarian communication systems, relationships between government and mass communication in modern world. Evarts; D.

#### 813 Ethics, Internet, and Society (4)

Directed research and reading in the context of ethics, Internet, and society. Emphasis on communication-theoretical, media-cretical, and ethical analyses of the Internet, and on Internet-specific research strategies and methods. *Debatin; D.* 

#### 814 Literature in Journalism (4)

Directed reading and discussion in literature. *Debatin, Riffe;* Su; Y.

### 815 Seminar in Theory of Freedom of the Press (4)

Prereq: 511. Historical and philosophical development of concept of free expression and its relationship to development of Anglo-American system of information flow. Contrasting ideologies and their evolution. Implications of these theories in contemporary states. Hodson; D.

#### 816 Seminar in Mass Media Research (5)

Prereq: 806. Students present research ideas to seminar, discuss progress and problems, report findings, and defend projects before group. Emphasis also on scaling and measurement, nonparametric statistics, research strategy, and nature and function of theory in mass communication research. *Riffe; Sp; Y.* 

#### 821 Seminar in Content Analysis (4)

Methods of studying mass media content; individual projects and readings. Bernt; W, Sp; Y.

#### 830 Magazine Research and Development (4)

Investigation into and seminar discussion of role of magazine in American society. Problems of magazine publishing, problems of magazine editing, and structure and nature of magazine industry in U.S. Major research project. Bernt. D.

#### 850 Seminar in Advertising (4)

Human information processing as it affects advertising copy. Slater; D.

#### 866 Seminar in International Mass Media (5)

Prereq: 566, 803. Directed research and reading applied to problems of international communication and comparative foreign journalism. Each student writes an original research paper. Cooper; W; Y.

#### 871 Public Relations Problems and Programs (4)

Prereq: 571, 572. Overall planning and operation of public relations programs in government, industry, and educational and nonprofit organizations. Analysis and seminar discussion of problems and policies in such institutions. Case method used in conjunction with individual field studies conducted by class members. *Knott;* 5; Y.

#### 880 Special Topics Seminar (5)

Prereq: 803 or 806 or perm. Seminar treatment of areas of current or topical interest in journalism and mass communication; topic varies with instructor expertise and research interests.

#### 895 Dissertation (1-15)

F, W, Sp, Su; Y.

#### **Mass Communication**

The E.W. Scripps School of Journalism and the School of Telecommunications jointly offer a doctoral program in mass communication. Students may work toward a Ph.D. in mass communication with an emphasis in either telecommunications or journalism.

There are differences in the doctoral programs offered by the two schools. The School of Telecommunications emphasizes the study of international media, new technology and culture, media management and policy, and media studies. The School of Journalism focuses on international; legal and historical studies; visual communication; media management and public policy; and theory and empirical research.

Before applying you are urged to consult the Web sites of both schools to see which program might be most appropriate to your interests.

In your application you must select one of the two schools; in the appropriate line on the Ohio University application form, you should specify either "mass communication—telecommunications" or "mass communication—journalism." Combined applications are not permitted.

The minimum requirements are a total of 135 quarter hours of graduate work, including 50 hours of previous work on the graduate level for the School of Journalism, or up to 60 hours for the School of Telecommunications, that have been accepted for transfer by the relevant school. The total hours include up to 15 quarter hours of credit for the dissertation; a major of at least 54 quarter hours (other than the dissertation) in mass communication, and at least 18 quarter hours in a related area outside the College of Communication. The remaining hours are distributed among courses selected with the approval of a program committee that advises the doctoral candidate on the program of study that will best serve the student's personal and career goals. For Journalism, students must take four tool skills courses that do not count for graduation. There is a similar requirement in Telecommunications. In

this case a minimum of 12-15 credit hours of research tools courses are required. These hours also do not count toward the total hours needed for the degree.

In the School of Telecommunications new doctoral students are only admitted at the beginning of the fall quarter due to the sequence in which courses are offered. In the School of Journalism, those admitted for fall may start in summer. The application deadline for both schools is February 1 for U.S. citizens and permanent residents, or December 31 for international applicants. This earlier deadline for international applicants is to allow time for international transcripts to be received and evaluated. Even earlier submission of materials is strongly encouraged.

## Telecommunications

http://www.ohio.edu/tcomschool/

The School of Telecommunications offers programs of study leading to the Master of Arts in Telecommunications and the Doctor of Philosophy in Mass Communication. The Ph.D. is offered in conjunction with the School of Journalism.

At the master's level, students design their own programs of study with approval of a faculty committee. Specializations may include international communication, management, policy/regulation, media studies, and multimedia. The master's program prepares students for careers in broadcasting, cable, multimedia, and related fields. It can also serve as the basis for doctoral studies.

A specialization in public broadcasting management is also available. It focuses on non-commercial radio and television, and provides practical experience through Ohio University's Telecommunication Center and through internships. Assistantships are available for women and minorities who have a minimum of three-years', full-time, public broadcasting experience.

#### Admission

Admission to graduate study in Telecommunications requires a baccalaureate degree for the master's program and a completed master's degree for the Ph.D. program. For master's applicants, an undergraduate g.p.a. of 3.0 on a 4.0 scale is expected, although other factors—professional experience or test results, for example—will be considered. Doctoral applicants are expected to present academic credentials of a particularly high academic standard.

Applicants are required to submit letters of recommendation, Graduate Record Examination and/or Miller Analogies Test scores, writing samples, an applicant information form (available from the School of Telecommunications), an application form, and transcripts of all university academic work. Applicants should have prior professional or academic experience in electronic media or closely allied fields of communication. However, academic and professional potential as documented in application materials can offset the lack of a strong background in the field. On advice from the school's graduate committee, individuals may be required to make up deficiencies by enrolling in appropriate undergraduate courses or by completing a directed readings program.

All application materials must be received no later than February 1 for applications from U.S. citizens and permanent residents. However, international applicants should ensure that all materials are received no later than December 31 to allow time for international transcripts to be evaluated. Applications will be accepted only for fall quarter entry.

#### Requirements

The non-thesis master's program consists of coursework totaling 56 hours, including a minimum of 25 hours in the major field of study and at least 8 hours in a supporting area. These supporting courses are selected from one or more departments outside the School of Telecommunications and may include courses from more than one department. A thesis option exists for those students with a special interest in academic research.

All master's students are required to take two courses: TCOM 501, Introduction to Graduate Study, and TCOM 601, Introduction to Mass Communication Research. At the end of their studies, non-thesis students must successfully complete a comprehensive examination and thesis students must present an approved thesis.

A minimum g.p.a. of 3.0 must be maintained. Those who earn a grade below a B (3.0) in more than two courses will not be permitted to continue in the program.

Ph.D. requirements are listed under Mass Communication.

## Telecommunications Courses (TCOM)

- 501 Introduction to Graduate Study (1)
  Analysis of scholarship and research as foundation for graduate study.
- 518 Producing for Video (4)
  Developing programs for commercial, public, and

Developing programs for commercial, public, and corporate television. Covers program research, development, testing of program concepts, and the production process.

- **521** Nonbroadcast Video Systems (4) Examination of the uses of video in business, industry, and other public service organizations.
- 540 Public Telecommunications (4)
  Historical development, current status, and challenges to public telecommunications.
- 541 Instructional Telecommunications (4) Using telecommunications in instruction: radio, television, cable, fiber optics, satellite, computer applications in education.
- **554** Personal Values in Telecommunications (4) Explores the nature of personal values and surveys the values that have shaped and are shaping American culture. Examines the role of the individual within media institutions and of the media within American culture.

#### 561 Telecommunications Financial Management (4)

Consideration of fiscal problems in operation of radio, television, and other telecommunications industries, with special emphasis on economics and financial policies.

- 563 New Technology (4)
- Investigation of emerging technologies of telecommunications via broadcast, cable, satellite, telephone, and information systems
- 564 Cable Communications (4)
  Critical examinations of cable industry including

technical aspects; franchising; programming; local, state, and federal regulation; and public interest service.

565. Satellite Communications (4)

565 Satellite Communications (4)
Prereq: sr. Role of satellites in global
communications from historical, technical,
regulatory, economic, political, and
proorammatic perspectives.

## 566 Technology, Communication, and Culture (5)

Examines the ways in which communication technologies shape and structure a culture and the ways in which a culture, in turn, uses these technologies first to stabilize and second to discover meaning.

#### 568 Action Research (5)

An experiential and interactive approach to optimizing human resources and enabling groups, organizations and communities, in development and business, to improve their functioning, develop continuing problem-solving and team-building abilities, and produce organizational and social change.

- 575 Politics and the Electronic Media (4)
  Examines complex relationships between electronic media and political process through study of campaign strategy, polling, commercial advertising, and news coverage.
- 581 Women and Media (4)

Examines representation of women in media through experiential exploration of individual attitudes and values with respect to culture, sexism, and analysis of media content.

582 Documentary Genres (4)

Explores the various genres of documentary video and film with a particular emphasis on television documentary and recent video works. Deals with such topics as historical development, factuality and truthfulness, objectivity, and ethics. Assignments and discussion are based on an extensive schedule of screenings.

- 586 Colloquium in Telecommunications (1–5) Intensive study of special topics in field of telecommunications.
- 601 Introduction to Mass Communication Research (5)

Examines historical, economic, political contexts in which quantitative and qualitative research emerges. Includes introduction to current quantitative and qualitative techniques.

602 Quantitative Research (5)

Mass communication measurement techniques, research design and implementation, survey, content analysis, and applied statistical analysis.

603 Qualitative Research (5)

Introduction to qualitative research methodology with an emphasis on phenomenology, semiology, and ethnographic fieldwork.

610 Audio and Video Production (5)

An introductory course for graduate students lacking production experience. Covers audio and video theory and terminology and production planning Provides experience in audio and video production.

- 665 Communication and Development (5) Explores relationship between communications media and human development, in areas such as education, the economy, public health, the environment, and political institutions, and the role of stakeholders. Provides practical experience in communication campaign design and the application of research and theory to development issues.
- **694 Independent Study (1–12)** Individual research on special problems. Projects must be approved prior to registration.

695 Thesis (1-10)

705 Directed Research (1-9)

Prereq: acceptance by competition only. Provides opportunity to implement and complete major research study under supervision.

- 750 Economics of Telecommunications (5) Economic structure of broadcast and cable industries; their relationships with other industries; fiscal policies and practices; sources and control of revenue, profit, and expenses. Case studies in economic problems and practices.
- 751 Telecommunications Management (5) Consideration and examination of theory and practice in telecommunications management, organization, personnel management, and motivation; examines role of manager in relationship to various telecommunications operations.

#### 753 Telecommunications Law and Regulations (5)

Sociopolitical control of telecommunications; effect of laws, regulations, and public pressures upon policy.

- **755 Broadcast and Cable Programming (5)** Programming concepts, resources, costs, selection, and scheduling.
- 757 Broadcast and Cable Sales Management (5) Problems and practices of broadcast and cable sales and sales management; policy formation including projects devoted to commercial inventory and rate structure.
- 759 Audience Research (5)

Various methods, techniques, and applications of audience study in broadcasting and cable; includes study of current rating services.

## 767 Comparative 5ystems of Telecommunications (5)

Telecommunications systems of selected countries studied in terms of political, social, economic, and cultural themes.

- 769 International Telecommunications (5)
  Development, impact, and control of international telecommunications for propaganda, commercial, and social purposes.
- 770 Mass Communication Theory (5) Examines diverse midrange theories in mass communication including media dependency, cultivation, uses and gratifications, social learning, and media effects.
- 771 Social Impact of Mass Communication (5) Examination of the literature on effects of mass media upon society with particular reference to highly attracted individuals and groups; includes study of relationship of research to policymaking process.
- 772 Critical/Cultural Theory (5)

Preq: 770. Critical and cultural approaches to theorizing about mass communication in a mediated society. Emphasis on such contemporary theories as semiotics, deconstruction, feminism, and postmodernism.

779 History of Broadcasting (5)

Origin of U.5. system of radio and television communication and its development to present.

784 Television Criticism (5)

Survey of contemporary theories and methods of critical analysis including semiotics, feminism, and reader response. Screenings include past, present, avant-garde, and mainstream television programs.

804 Seminar in Mass Communication Research (5)

Intensive study of research methodologies in mass communication scholarship; individual projects.

843 Seminar in Pedagogy (5)

Problems, methods, and techniques of teaching college-level telecommunications.

#### 865 Seminar in International Telecommunications (5)

Problems in sociopolitical control of telecommunications related to developing systems of other nations and international implications of technological development of telecommunications.

#### 884 Seminar in Criticism (5)

Intensive examination of video as aesthetic and cultural form. Analysis and practice of video criticism.

#### 894 Independent Study (1–12) Individual research on special problems. Projects must be approved prior to registration.

895 Dissertation (1-12)

## Visual Communication

http://www.viscom.ohiou.edu/

The School of Visual Communication offers a program of study leading to the Master of Arts in photography with a specialization in visual communication. The M.A. requires 45-quarter hours of graduate coursework. Requirements include: a master's project, VICO 514, 522, 571 and 20-24 hours in a major field of study. Major fields of study include: Photojournalism (including documentary photography), Commercial Photography (including illustrative photography), Interactive Multimedia, and Picture Editing/Publication design.

In addition, students in the Photojournalism or Picture Editing/Publication Design field of study are required to take JOUR 511–Newspaper and Communication Law and JOUR 512–Ethics, Mass Media, and Society. These courses may be waived if you present evidence that you have completed equivalent coursework or have equivalent professional experience. Credit for these courses does not apply toward the degree requirements.

A required progress review is held at the end of the first quarter or completion of fifteen-quarter hours to assess the student's suitability for continued study.

#### **Application**

To apply, you must have a bachelor's degree with a minimum 3.0 grade point average (g.p.a.) on a 4.0 scale. Other factors including professional experience or outstanding portfolio

may qualify you for admission if your g.p.a. is below the minimum. Submit completed application forms, the application fee, and two official transcripts from each post-secondary institution attended to the Office of Graduate, Studies, Ohio University, McKee House, Athens OH 45701-2979. All students whose native language is not English and do not have a bachelor's degree from an institution of higher education in the United States are required to achieve a TOEFL score of 600.

In addition to the material submitted to the Graduate Student Services office, you must also submit to the Graduate Chair of the School of Visual Communication the following additional material: three letters of recommendation, a resume, a non-returnable portfolio, and a 500-word statement of intent outlining why you want to attend graduate school. Send this additional required material to the Graduate Chair, School of Visual Communication, Ohio University, 301 Seigfred Hall, Athens OH 45701-2979.

Successful applicants generally have three or more years of professional experience and a focused statement of intent.

#### **Portfolio**

Your portfolio must meet these requirements: For Photojournalism, Commercial Photography or Picture Editing/Page Design—a minimum 20slide portfolio in a slide file page is preferred. You may instead submit a CD-ROM portfolio, with digital images viewable on a Macintosh computer. All images must be in JPEG format at a resolution of 800 X 600 pixels at 72 ppi (pixels per inch. All images must be contained in a single folder (directory). No self-running presentations, Web sites or prints will be considered. Interactive Multimedia applicants may submit their portfolio on appropriate media to be viewed on Macintosh computers.

#### Deadline

The deadline for international students is receipt of all application material by

December 15. The deadline for domestic students is receipt of all application material by February 1. Only applicants who have submitted all materials in the requested format by the deadline will be considered. All materials should be received well in advance of the deadline. A campus visit prior to the February 1 application deadline is strongly recommended for domestic students.

#### **Equipment Requirements**

Photojournalism students are required to have at least two professional-level 35mm SLR cameras, two lenses and a dedicated flash. One lens should have a 35mm or shorter focal length with a maximum aperture of f/2.8 or larger. The second lens should be in the 135 to 200mm f/2.8 range. Zoom lenses are also acceptable if they meet the maximum aperture requirement of f/2.8 or larger.

Commercial Photography students should have a professional-level medium-format camera with interchangeable film backs, a Polaroid 545i back, one wide-angle lens, one telephoto lens and a flash meter.

#### Financial Aid

The School awards a limited number of graduate assistantships and Office of Graduate Studies (OGS) stipend scholarships, which are in exchange for assigned student work. Selection is competitive and based upon openings and funding. You must maintain a 3.0 g.p.a to retain support. To be considered, mark the appropriate item on the application for graduate admission. See the financial aid section of this catalog for information on financial aid programs available through the Office of Student Financial Aid and Scholarships.

#### For Further Information

Write to the Graduate Chair, School of Visual Communication, Ohio University, 301 Seigfred Hall, Athens OH 45701-2979, or visit the School's Web site.

## Visual Communication Courses (VICO)

501 Aspects of Photo Communication (1–5)
Develops skills in visual perception, technique, and visual communication. Repeatable up to 20 hours but does not count toward M.A.

#### 511 Informational Graphics (5)

The visual presentation of quantitative and spatial information. Examines the planning, design, and computer preparation of charts, graphs, diagrams, and maps for use in newspapers and magazines.

512 Advanced Informational Graphics (5)
Prereq: VICO 511. The visual presentation of spatial information with emphasis on design and production techniques as they pertain to newspapers and magazines.

#### 514 Desktop Publishing (4)

Prereq: perm. Introduction to publication design. Introduction to content planning, the application of design principles and production techniques in print media using current technology.

517 Photo Illustration: Fashion (4)
The exploration and interpretation of the interaction

The exploration and interpretation of the interaction of gesture, movement, and light in relation to capturing the essence of people and garments.

518 Photo Illustration: Still Life (4)
An exploration of the principles of light and its effect on surfaces and shapes in studio lighting.

520 Topic Seminar (2-4) repeatable

Prereq: M.A. student. A flexible format for examining current and future topics in visual communication. Because of constantly changing trends in the profession, topics vary as an area of need not covered in an existing class is identified. Topics include such areas of rapid change as technology, techniques, ethics, and aesthetics.

521 Documentary/Essay (5)

Prereq: VICO 586. The use of still photography as a tool for social, anthropological, and journalistic investigation of contemporary issues. Using methods defined by traditional field researchers, the class expands the use of the photograph for collection and interpretation of selected subjects.

522 Graduate Seminar (1)

Prereq: M.A., M.S. students only. Deals with such topics as ethics, current trends, internships, information from recent visits to newspapers or meetings. Professionals visiting campus are also asked to speak on topics concerning the visual communication profession.

523 Publication Layout and Design (3)
Prerec: JOUR 536. Examines historic and
contemporary theories of page design. Students
investigate methods of combining type,
graphics, and photographs on the printed page.

524 Portraiture (4)

This course provides students with an overview of the techniques used in photographic portraiture. Portraiture skills are essential to both photojournalists and commercial photographers. This class offers skills in natural and artificial lighting, working effectively with the subject/model and the development of portraiture concepts. Students will be required to seek out portraiture subjects and photographs on location and in the studio.

#### 526 Advanced Publication Layout and Design (3)

Prereq: VICO 523. Advanced study in the use of computers as a tool for layout, design, and pagination for print media.

#### 527 Advanced Photographic Illustration: Business Practices (5)

Prereq: M.A. commercial photography majors only. An investigation of the principles of studio management. Areas of study include copyright, computer use, self-promotion, and financial management.

#### 528 Advanced Photographic Illustration: Studio Practices (5)

Prereg: M.A. commercial photography majors only. Advanced studio methods in the design and execution of illustration images. Particular emphasis placed on the professional performance in producing images using advanced equipment and techniques.

#### 529 Advanced Photographic Illustration: Applications (5)

Prereq: M.A. commercial photography major. A synthesis of business and photographic skills. Students given simulations based on a complete project concept that reflects the realities of working professionally.

535 Picture Editing (3)

Prereq: VICO 514. This course helps students understand and practice the skills necessary to function as picture editors and visual leaders in a journalistic environment. Students will also gain a deeper understanding of how photographs communicate and foster a respect for the journalistic photograph and the individuals who produce them. The active learning course structure includes working in a group environment where situations stress both effective written and spoken skills. While some design skills are expected, the emphasis is on journalistic-based logic, articulation, and visual leadership in content origination.

536 Advanced Picture Editing (3)

Prereq: VICO 535. The goal for this course is to facilitate a deeper understanding of the theory and reality of picture editing in a journalistic environment, to practice the skills essential for the task, and employ the thought processes that thread through routine visual management decisions. We will examine examples, work in groups to simulate real-world environments, and produce portfolio quality presentations on deadline. Same as JOUR 536.

S61 Introduction to Web Design (4)
Prereq: VICO 514 and VICO 561 and NOT VICO
361. Introduction to Web design will provide
graduate students with an overview of Internet
design and user-interface. The goal of the course
is to provide students with the knowledge and
analytical skills, technical skills, aesthetic, and
creativity needed to successfully design for the

562 Advanced Web Design (4)

Prereq: VICO 561 and NOT 462. This course will prepare students for the job market in Web design. The class will provide students with an understanding and wide range of skills that are required to work in the field. Some of these advanced skills include the utilization of the human interface, interface design, creative design, information architecture, creation/production of multimedia-based visuals and audio files, as well as an overview of various current technologies.

570 Graphic Systems Management (4)
Prereq: VICO 511 or 514. Planning, configuration, and maintenance of computer and communication systems used in the graphic arts industry. Surveys electronic production methods and examines technical and practical issues of graphics computers, peripherals, applications, and system software.

571 Digital Imaging (4)

Prereq: VICO 511 or 523. Advanced class using the Macintosh computer and production-quality scanners as tools to create composite and altered photographic images for creative and illustrative presentation.

573 Interactive Media (4)

Prereq: VICO 570. Introduction to planning, media integration, and production techniques and tools of interactive multimedia. Through practical exercises, exposes students to major component media including computer text, graphics, photography, animation, speech, sound, and video. Technical and human interface issues are also covered.

580 Digital Portfolio (0) Prereg: VICO 522 or perm.

581 Editorial Photography (4)

This course is an introduction to the broad range of single image still photography as it is used in editorial publications. The goal of this photojournalism class is for students to acquire the skills to produce work worthy of publication in newspapers, magazines, and the Web.

582 The Photographic Essay (4)

This course is an introduction to the photographic essay. The goal of this photojournalism class is to engage students in the research and imagining processes necessary to organize and produce in-depth photographic coverage on selected topics pertinent to and worthy of publication in newspapers, magazines, and on the Internet.

S86 Advanced Photographic Reportage I (4) Advanced visual production work in newspaper photographic reportage with particular emphasis on the picture story or photographic essay. This documentary photojournalism class uses a wide range of color and/or black and white material. Finished projects incorporate the use of computers and scanned images for final portfolio production.

587 Advanced Photographic Reportage II (4) Prereq: VICO 586. Advanced visual production work in magazine design, with particular emphasis on the picture story or photographic essay. Use of a wide range of skills to produce a prototype magazine publication. Demands audience research, visual content focus, field research, photography, writing, design, and production. Involves the use of computers and film scanners for production.

588 Interactive Media (4)

Prereq: 587. Advanced visual photographic production using time-based media (slide shows and CD-ROM), with particular emphasis on the picture story or photographic essay. This documentary photojournalism class uses a wide range of photographic materials. Finished projects incorporate the use of computers and scanned images into time-based visual presentations.

594 Small Systems Lighting (4)

This course will explore the history, aesthetics, and techniques of using artificial strobe light as it applies to the still photographic image. Students will experiment with a variety of lighting styles as they acquire the skills of using dedicated electronic flash units and portable lighting systems.

691 Individual Study (1–5, max 15)
Prereq: written proposal. Individual course of study agreed upon with the permission and guidance of a department faculty member.

694 Master's Project (1-15)

You may take up to 15 hours. Five hours are required, and only these five will count toward your degree.

## College of Education

McCracken Hall

James Heap Dean

Bonnie Beach
Associate Dean

Ginger Weade

Associate Dean

http://www.ohio.edu/education/ index.html Graduate study and research in the College of Education place primary emphasis on bridging the gap between theory and practice—between research and the everyday educational and human problems that confront students, teachers, counselors, curriculum workers, administrators, and other professionals in related fields. Practice and internships coupled with research constitute the components of our advanced programs. Interdisciplinary study is encouraged when appropriate.

Master's students may attend full or part time; there is no residency requirement for a master's degree. Full-time students can complete most master's programs in a minimum of four academic quarters. Doctoral programs require a three-quarter continuous residency on the Athens campus and can be completed in a minimum of three academic years.

All professional education programs are fully accredited by the National Council for Accreditation of Teacher Education (NCATE). The Counselor Education Program is accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP) and CORE.

Detailed information concerning graduate programs is available from the Office of Graduate Studies, College of Education, Ohio University, McCracken Hall 124, Athens OH 45701-2979.

#### **Master's Programs**

To major in a given area, you must have a program of study planned and approved by a faculty advisor to meet your professional needs and objectives. The minimum number of credit hours varies depending on program requirements and, when applicable, standards for certification licensure. Specific admissions criteria for admission and program requirements are available from the Office of Graduate Studies, College of Education.

Master's programs are offered in several areas of professional education:

#### Department of Counseling and Higher Education

College Student Personnel
Counselor Education (school,
community and rehabilitation
counseling)
Higher Education

#### **Department of Educational Studies**

Computer Education and Technology Cultural Studies in Education Educational Administration Educational Research and Evaluation

#### Department of Teacher Education

Adolescent to Young Adult Education Curriculum and Instruction Mathematics Teaching at the

Adolescent to Young Adult Level Middle Child Education Reading Education Special Education

#### **Doctoral Programs**

Advanced preparation leading to the Ph.D. or Ed.D. is offered in the College of Education.

If admitted to a doctoral program, you are expected to apply for admission to advanced studies after two quarters of coursework. Admission is based on review of your progress, faculty recommendations and completion of at least nine hours of course credit.

Doctoral candidates are required to successfully complete a written and oral comprehensive examination and an acceptable dissertation.

You are assisted throughout your program of study by a faculty advisor and a doctoral program committee.

Specific information regarding criteria for admission, financial assistance, scholarships, etc., is available from the Office of Graduate Studies, College of Education, McCracken Hall 124.

#### Department of Counseling and Higher Education

Counselor Education (Ph.D.) Higher Education (Ph.D.)

#### **Department of Educational Studies**

Curriculum and Instruction:
Instructional Technology (Ph.D.)
Educational Administration (Ed.D)
Educational Research and Evaluation (Ph.D.)

#### Department of Teacher Education

Curriculum and Instruction:
Curriculum and Instruction (Ph.D.)
Math Education (Ph.D.)
Middle Level Education (Ph.D.)
Reading and Language Arts (Ph.D.)
Social Studies Education (Ph.D.)
Special Education (Ph.D.)

Note: If you have earned a master's degree in education at Ohio University and plan to take additional coursework in education, you must reapply for admission through the Office of Graduate Student Services.

Alternative admission may be granted if you do not meet the required grade-point average or test score on one of the required standardized tests.

Alternative admission may be based on

the achievement of a compensating test score, successful completion of an interview with program area faculty, or such factors as extensive work experience or outstanding recommendations.

# Department of Counseling and Higher Education

#### http://www.ohio.edu/che/index.html

The Department of Counseling and Higher Education (CHE) prepares students for professional positions in schools, colleges, and community agencies. Graduates function in a variety of roles, including administration, supervision, counseling, consultation, teaching, and research. Programs are designed to meet state licensing requirements where applicable, in addition to providing flexibility to meet specific student interests and competency needs.

To pursue graduate study in the Department of Counseling and Higher Education, you must meet established graduate requirements and be accepted by the appropriate program faculty.

If you are an applicant for a master's degree program and do not have a 2.9 overall (4.0 scale) or a 3.25 g.p.a. on the last 90 quarter hours (4.0 scale), you are required to submit scores from the verbal and quantitative Graduate Record Examination (GRE).

If you are applying for a doctoral program, submit the results of the GRE (verbal and quantitative).

Applicants at all levels must submit letters of recommendation and an autobiography, and may be required to appear for interviews. Ph.D. applicants are required to take a writing exercise at the time of the admission interview.

If you are considering graduate work in CHE, arrange to complete the application process well in advance of the quarter in which you expect to begin study. If you have not taken the GRE within the past five years, note that this examination is administered on specified dates and that the interval between adminis-

tration and receipt of scores is ordinarily six weeks. You also may take this exam by computer at selected locations for a faster turnaround time.

You may apply for OGS stipends, graduate assistantships, and fellowships. If you are accepted for a graduate assistantship, you will do research or be assigned teaching responsibilities in the College of Education, other departments in the University, or other institutions or agencies outside the University.

Further information regarding programs and admissions procedures is available from the Department of Counseling and Higher Education, McCracken Hall, Ohio University, Athens OH 45701-2979, telephone 740.593.4440.

#### **Counselor Education (EDCE)**

Programs in community counseling, rehabilitation counseling, and school counseling are offered leading to graduate degrees in counselor education. Within these programs, you may emphasize courses and fieldwork leading to a professional counseling career in elementary, middle, or secondary schools; college counseling; business and industry; chemical dependency; agency work; or private practice. Doctoral-level work also leads to supervisory and university faculty positions.

The community counseling program is designed for those interested in professional counseling services in a community mental health center, in private practice, or in other agencies or business settings that provide health and social services. The program meets academic requirements necessary to become licensed in Ohio as a Professional Counselor (PC) with the option of completing the additional academic hours for a clinical endorsement in mental health counseling (Ohio Professional Clinical Counselor, PCC). It also meets academic and experience requirements for becoming a National Certified Counselor (NCC).

The rehabilitation counseling program meets the needs of personnel presently employed in public and private rehabilitation agencies, as well as graduates in such areas as psychology, sociology, education, and human services. Upon completion of the program,

you will have met the academic requirements to become a Certified Rehabilitation Counselor (CRC), and with additional clinical courses you will be eligible for the PC license.

The school counseling program is for those who wish to practice as elementary or secondary school counselors. It meets the academic and counseling experience requirements to receive state Department of Education certification as a school counselor in Ohio and most other states, and also meets academic requirements for PC and NCC.

Master's degree programs consist of a minimum of 72 quarter hours of study and can be completed in six to eight quarters of full-time attendance, depending upon the area of concentration. Many core courses are offered during the summer, and many late afternoon and evening classes are available during the regular academic year to accommodate students with full-time employment. Along with a counseling practicum (120 work experience hours), two quarters of required internship (600 total work experience hours) provide extensive experience. Ohio licensing as a PC or PCC requires an additional 18 hours for a total of 90 quarter hours.

The doctoral program in counseling is psychological in content, experience, and nature. Ph.D. specializations are available in counseling, counselor education, supervision, and research and evaluation. The courses of study combine personal growth, theoretical foundations, research methodology, and relevant practical experience. They are designed on the basis of the specialty sought and the background you bring to the program. The array of courses included in the curriculum may be used to meet the requirements for professional certification or licensure. It is your responsibility, however, to consult the credentialing agencies to determine their exact requirements. Be aware that such credentialing agencies periodically change their qualification requirements. The program requires a minimum of 135 quarter hours beyond a bachelor's degree and 90 quarter hours beyond a master's.

Approximately 25 to 35 M.Ed. students and 8 to 14 Ph.D. students are admitted

each year. Academic credentials, experience, and compatibility of personal characteristics and professional goals with advanced study in the field of counseling and counselor education are all taken into consideration in the evaluation process. You may apply for admission at any time, but priority will be given to those applications completed prior to March 1 since admissions and financial aid decisions are made early in the spring for summer or fall quarter entry.

Undergraduates interested in such work will find knowledge in the areas of the behavioral and social sciences, including psychology, education, sociology, and communications, most helpful. Those interested in school counseling will be required to have teaching certification and teaching experience for work in Ohio and many other states.

All degree programs in counselor education are nationally accredited. Community counseling (M.Ed.), school counseling (M.Ed.), and the Ph.D. program in counselor education and supervision are accredited by the Council for Accreditation of Counseling and Related Programs (CACREP); the M.Ed. rehabilitation program is accredited by the Council on Rehabilitation Education (CORE); and all College of Education programs, including counselor education, are accredited by the North Central Association of Colleges and Secondary Schools and the National Council for Accreditation of Teacher Education, Such accreditation can be advantageous in gaining professional credentials and employment after graduation.

For further information, contact the coordinator of counselor education.

## Counselor Education Courses (EDCE)

520 Elementary School Counseling (4) Rationale, scope, and nature of elementary school guidance; multiple approaches to provision of guidance services with emphasis upon role of elementary school counselors in child study counseling, consultation, classroom group guidance and coordination, and curriculum development. *Hazler; F, Su; Y.* 

#### 521 Counseling, Teaching, and the Behavior Change Process (5)

Theories of behavior-change process in educational, community, and business settings. Application and evaluation of techniques to modify behavior that involve counselor clients and the counselor in the behavior change process with effective communication emphasized. D.

#### 522 Career Development: Research and Theory (4)

Prereq: 520 or 530 or 541. Theories, practices, methods, and processes of career development for varied settings: school, community, business; review programs which develop career planning/ life components; exploration of career education and counseling opportunities; review and/or implementation of career-related research. Olsheski; F, Su; Y.

#### 525 Foundations of Rehabilitation Counseling (4)

History and development of counseling of individuals with disabilities. Other topics include philosophy, counseling process, place of rehabilitation counseling in community, legislative aspects, and overview of agency activities. Olsheski; W; Y.

#### 526 Medical Issues in Rehabilitation (4) Overview of basic anatomy, physiology, and the normal functioning of body systems. Emphasis on functional aspects of disability; psychosocial and vocational implications; and importance of incorporating a sense of wellness. Olsheski; F; Y.

528 Psychosocial Aspects of Disability (4) Explores the emotional and social factors contributing to disabilities, the interaction of these factors in the rehabilitation process, and the role of the rehabilitation counselor in understanding the dynamics of disability. Olsheski; Sp; Y.

529 Job Placement Theory and Techniques (4) Provides rehabilitation counselor trainees with requisite skills to perform job analyses, suggest job modifications or restructuring, conduct job development activities that affect successful job placement for individuals with disabilities. Olsheski: W: Y.

#### 530 Foundations of Counseling (4)

Rationale, scope, and nature of counseling services in educational, community, and business settings; multiple approaches to provision of such services with emphasis on role of counselor in needs assessment, program planning, counseling, consultation, coordination of services, and curriculum development for diverse populations. Study of problems, issues, trends, and ethical responsibilities in the field of counseling. Hazler; F, Su; Y.

#### 531 Appraisal I (4)

Prereq: 520 or 530 or 541. Concepts of reliability and validity as applicable to appraising human characteristics set stage for considering critical role that clinical judgment plays in professional helping. Emphasis on basic appraisal techniques, including diagnostic interviewing, observational systems, rating scales, interactional analysis, and educational and psychological testing. Testing portion provides introduction to intelligence, achievement, aptitude, and perceptual, vocational, and personality (objective and projective) measures. *Hazler; W; Y.* 

545 Counseling Over the Life Span (4)
Prereq: 520, 525, 530, 541. Implications of life-span development issues for counselors. Issues in counseling and counseling needs throughout the life span will be explored. Techniques and strategies for counselors to use in dealing with the needs of persons of different ages will be covered. W, Su; Y.

#### 550 Counseling in Groups (5)

Introduction to group processes and their application in a variety of settings. Topics include history, theory, techniques, group dynamics and counseling, group leadership, ethics, research and evaluation, lectures, demonstrations, and group lab experience. *Sp., Su; Y.* 

555 Counseling Theory and Techniques I (S) Didactic phase includes a review of the basic counseling competencies applicable to all theoretical approaches. Affective, behavioral, and cognitive-oriented approaches to counseling also discussed from a general perspective. The lab phase of the course allows students to practice the counseling competencies addressed in the classroom. *E. Su.* 

#### 570 Organizational Theory and Techniques in Counseling and Personnel Services (4)

Prereq. S20 or S30 or S41. Identification of need for counseling and human resource development programs in the workplace. Employee assistance programs, training and development, and career development issues addressed. The course content can be considered for a variety of work settings such as business and industry, educational institutions, and mental health facilities. Davis: W. D.

610 Field Experience in Counseling (1–12) Supervised field work in educational or community setting selected with regard to professional needs and interests of individual student. Student should have a clear idea of type of field experience desired and required setting for the experience before enrollment. Course requirements will include on-site supervision by staff, regularly scheduled on-campus conferences, and progress and terminal reports. D.

#### 620 Readings and Research: 5chool Counseling (1–5, max 12)

Study and interpretation of professional literature on counseling and other guidance services provided in elementary, secondary, and vocational school settings, as well as two-year colleges. Independent and directed projects. F. W. Sp., Su.

#### 621 Readings and Research in

Community Counseling (1–5, max 12) Study and interpretation of scientific research on community mental health or selected government agencies. Independent and directed projects. F, W, Sp; Y.

#### 6238 Special Topics Seminar: Stress, Biofeedback, and Self-Control (1–3, max 18)

Provides overview of holistic approach to wellbeing, nature, and sources of stress and distress, effects of distress upon mind-body systems, and methods that are important for developing physical and mental relaxation, cognitive intervention, and assertive behavior. Specific applications in occupational and life settings suggested. F.

## 623C Special Topics Seminar: Marriage and Family Counseling (1–3, max 18)

Analysis of factors contributing to marital and family dysfunction. Development and implementation of selected counseling models and strategies commonly used in working with couples and families. Beamish; F; Y.

## 623D Special Topics Seminar: Assertiveness Training (1–3, max 18)

Focuses on theory and strategies of assertiveness training. Attention to goal setting, role playing, alternative behavior, evaluating consequences, and implementation of assertive behavior. Emphasis on differentiating nonassertive, assertive, and aggressive behavior. D.

## 623E Special Topics Seminar: Counseling and Human Sexuality (1–3, max 18)

Study of human sexuality and stereotypical attitudes, attainment of basic knowledge, awareness of sexual abuse and violence, and understanding sexual dysfunction and sexual adequacy. *D.* 

#### 623F Special Topics Seminar: Adlerian Theory, Methods, and Research (1–3, max 18)

Theory, research, and applications of individual psychology in educational, community, business, and private practice settings. Counseling,

consultation, and psychotherapy methods and techniques will be demonstrated. Sweeney: D.

#### 623G Special Topics Seminar: Human Relations 5kills for a Multicultural Society (1–3)

Provides for understanding of human relations skills for effective interpersonal communication. Focus on skill development, cultural and value differences among ethnic, racial, religious, and other groups. These skills have generic application for helping professionals in educational, community, family, work, and leisure settings. Doston; D.

623H Special Topics Seminar (1–3, max 18) Prereq: perm. Seminar topics include areas of study in human potential, rehabilitation counseling, normal and dysfunctional physical, mental, and emotional development.

#### 638 Gerontological Counseling (3)

Attitude awareness regarding older persons, knowledge of developmental periods of aging, basic gerontological counseling concepts, and skills in applying knowledge of aging and counseling to work with older persons are emphasized. *D.* 

## 652 Laboratory: Group Counseling (5) Prereq: 550 Advanced study of group theory,

research, and applications. Group dynamics, leadership styles, and techniques are examined as they apply to various settings. Lecture, demonstration, and group lab experiences. W; Y.

655 Counseling Theory and Techniques II (5)
Prereq: SSS. Didactic phase of the course focuses upon specific theoretical orientations of counseling. These include individual psychology, rational emotive, behavioral, gestalt, reality, and multimodel theories of counseling. The lab phase allows practice of theoretical approaches addressed in the classroom. Davis; W; Y.

**660** Chemical Dependency Counseling (3) Focuses on the addictive process, stages and symptoms of chemical abuse, and intervention and treatment strategies for addiction. *Davis: F, Su; Y.* 

#### 662 Diagnosis and Treatment Planning in Counseling (4)

Emphasis on diagnostic and treatment process facing the mental health professional. Provides an opportunity to familiarize oneself with the diagnostic and statistical manual of mental disorders, as well as to interpret and make diagnostic assessment with a confederate client. Alternative treatment and planning are reviewed. Davis; Sp., Su; Y.

#### 664 Mental Health Consultation (3)

Introduction to the theory and process of mental health consultation as practiced in such settings as social service, rehabilitation, child care, community mental health agencies, prisons, schools, employee assistance programs, health maintenance organizations, and private practice. Sp; Y.

#### 685 Multicultural Education (4)

Provides understanding of cultural, ethnic, and racial differences and similarities in American society. Focuses on preparing professionals in educational, community, and leisure settings for working successfully with America's multicultural population. *Doston; F, Su; Y.* 

#### 691 Seminar in Education (4)

Prereq: 35 grad hrs, EDRE S01. A culminating evaluative experience involving the scholarly application of research, theory, and professional practice. F, W, Sp, Su; Y.

695 Thesis (2–10) E. W. Sp. Su.: D.

## 700A Advanced Counseling Practicum: 5chool (5–15, max 15)

Prereq: advanced standing, perm. Students conduct supervised counseling sessions. Preparing case notes, consulting with other professionals, critiquing

audio- and videotapes of their counseling sessions, participating in practical seminars, etc., are part of the experience. Students must submit an application for admission to the practicum the quarter before expected enrollment. F. W. Sp. Y.

#### 7008 Advanced Practicum: Community (5–15, max 15)

Prereq: advanced standing. Students conduct supervised counseling sessions. Preparing case notes, consulting with other professionals, critiquing audio- and videotapes of their counseling sessions, participating in practica seminars, etc., are part of the experience. Students must submit an application for admission to the practicum the quarter before expected enrollment. E. W. Sp. Y.

#### 700C Advanced Practicum: College (5–15, max 1\$)

Prereq: advanced standing. Students conduct supervised counseling sessions. Preparing case notes, consulting with other professionals, critiquing audio- and videotapes of their counseling sessions, participating in practica seminars, etc., are part of the experience. Students must submit an application for admission to the practicum the quarter before expected enrollment. D.

#### 700D Advanced Practicum: Rehabilitation (5–15, max 15)

Prereq: advanced standing. Students conduct supervised counseling sessions. Preparing case notes, consulting with other professionals, critiquing audio- and videotapes of their counseling sessions, participating in practica seminars, etc., are part of the experience. Students must submit an application for admission to the practicum the quarter before expected enrollment. F. W. Sp; Y.

#### 710 Counseling Internship (8-16)

Prereq: advanced M.Ed. standing. A culminating experience providing counseling and related services to clients in educational, community, and business settings. Services may include functions related to special problems and populations. Onsite supervision by staff is required, along with regular on-campus conferences. F, W, Sp; Y.

720 Advanced Seminar in Counseling (2–15) Prereq: advanced standing. Doctoral seminar providing students with preparation for in-depth study of counseling in educational, community, and business settings. *Hazler*; *F.* 

722 Career Development and Counseling (4) Prereg: advanced standing. Methods and practices in career planning and decision making; career patterns and theories; counseling services that promote career and vocational development and research. Olsheski; D.

#### 731 Appraisal II (5)

Prereq: 531. Special attention devoted to intelligence theory and tests (e.g., Stanford-Binet and Wechsler instruments): case data interpretation; and report writing and communication of appraisal results to other professionals. *Leinbaugh; W.* Y.

#### 732 Advanced Appraisal (S)

Prereq: 531 and practicum. Advanced appraisal techniques reviewed, with particular attention to personality measures. Both objective and projective techniques considered, and each student is expected to develop applied expertise with a method of each type. Actual case appraisals analyzed and critiqued; integration of data from a variety of appraisal procedures and professional communication of results emphasized. Sp. Su.

#### 735 Counseling the Exceptional (4)

Prereq: advanced standing. Characteristics of exceptional individuals; developing and implementing counseling services for exceptional individuals in educational, business, and community settings. D.

#### 736 Counseling and Behavioral Aspects of Special Populations (4)

Prereq: advanced standing. Intervention and treatment of special populations such as substance abusers; counseling and intervention for disenfranchised, including those who are emotionally, mentally, or physically disabled or incarcerated; and study of cultural and socio-logical influences on culturally different and implications for counseling. D.

**740** Family Counseling Practicum (2–5) Prereq: 623C, 821C. Supervised counseling experiences with families. *Beamish*; *D.* 

750 Practicum in Group (5, max 15)
Supervised experiences in group counseling in a variety of community mental health, university, business, and/or school settings. Individualized readings and study of group counseling theory and techniques. D.

755 Counseling Theory Advanced (5)

Theories and systems of psychology as applied to counseling and psychotherapy. Integration of theories and methods of counseling and psychotherapy to assessment and diagnosis, goal-setting, treatment, procedures, and evaluation of progress and outcomes. Use of case study to demonstrate knowledge in the treatment of selected mental, emotional, and behavioral disorders. Application of concepts of human development to personal growth and career-life planning. Review of innovative methods, recent research, and issues and trends. Beamish; Sp; Y.

759 Counselor Supervision (2-4)

Prereq: adv standing and/or clinical counseling field exp. Offers advanced graduate students theories and models of clinical supervision used in the counseling profession. Students participate in both didactic and lab activities. Davis; F.

#### 760 Counselor Education (4)

Counselor education history and development including standards, selection, and retention policies and practices, program design for preand in-service training, and current issues and research. Hazler; D.

761 Practicum in Counselor Education (5–15) Experience in program development and professional counselor preparation activities. Includes supervising of, consulting with, and education of pre- and in-service counselors. Other activities may include student and staff evaluation; organization of personnel programs; and use of staff meetings for counselee study, staff consultation, and program management. F, W, Su; Y.

#### 762 Legal and Ethical Aspects of Counseling Community, Personnel Services (4)

Law and ethics considered for educational and mental health contexts. Federal, state, and local statutes relevant to professional functioning, and rights of persons receiving counseling, and psychological services considered. Court decisions, critical cases, and legislation analyzed and interpreted. Code of ethics for counselors, psychologists, and human service workers reviewed. Guidelines for ethical behavior in delivery of services. Davis; F.

#### 763 Advanced Practicum in Specially Oriented Community Services (5)

Doctoral-level practicum and seminar providing indepth practical experience in selected human services in varied colleges and universities, community agencies, and other noneducational settings. *D*.

#### 800 Internship (10-15)

Prereq: perm quarter prior to enrollment. Internship may be taken at pre- or postdoctoral level. Intern works full-time in professional setting consistent with program emphasis for at least two quarters of full-time work or three quarters of half-time work. F, W, Sp, Su.

## 821B Special Topics Seminar: Stress, Biofeedback, and Self-Control (1–3, max 18)

Overview of holistic approach to well-being, nature and sources of stress and distress, effects of distress upon mind-body systems, and methods important for developing physical and mental relaxation, cognitive intervention, and assertive behavior presented. Specific applications in occupational and life settings suggested. Review and critique of papers on selected literature are expected. *D.* 

## 821C Special Topics Seminar: Marriage and Family Counseling (1–3, max 18)

Analysis of factors contributing to marital and family dysfunction. Development and implementation of selected counseling models and strategies commonly used with couples and families. Individualized project, and/or supervised counseling experience required. Review and critique of papers on selected literature are expected. Beamish; F; Y.

## 821D Special Topics Seminar: Assertiveness Training (1–3, max 18)

Focuses on theory and strategies of assertiveness training. Attention to goal setting, role-playing, alternative behavior, evaluating consequences, and implementation of assertive behavior. Emphasis on differentiating nonassertive, assertive, and aggressive behavior. Review and critique papers on selected literature are expected. D.

## 821E Special Topics Seminar: Counseling and Human Sexuality (1–3, max 18)

Study of human sexuality and stereotypical attitudes, attainment of basic knowledge, awareness of sexual abuse and violence, and understanding sexual dysfunction and sexual adequacy. Review and critique of papers on selected literature are expected. *D.* 

#### 821F Special Topics Seminar: Adlerian Theory, Methods, and Research (1–3, max 18)

Theory, methods, and research related to individual psychology and its applications to educational, community, business, and private practice settings. Counseling, consultation, and psychotherapy methods and techniques will be demonstrated. Review and critique of papers on selected literature are expected. Sweeney; D.

#### 821G Special Topics Seminar: Human Relations Skills for a Multicultural Society (1–3, max 18)

Provides for understanding of human relations skills for effective interpersonal communication. Focus on skill development, cultural and value difference among ethnic, racial, religious, and other groups. These skills have generic application for helping professionals in educational, community, family, work, and leisure time settings. Review and critique of papers on selected literature are expected. Doston; F, Su.

821H Special Topics Seminar (1–3, max 18) Other seminar topics include areas of study in human potential, rehabilitation counseling, normal and dysfunctional physical and emotional development, etc.

#### 823 Advanced Readings and Research in Counseling and Student Personnel (1–10) Prereq: advanced standing. Independent studies

Prereq: advanced standing. Independent studies and specialized projects for doctoral students. *F, W, Sp, Su*; *Y*.

#### 825 Colloquium (1, max 3)

Doctoral-level seminars to examine contemporary issues in counselor education. *D.* 

## 852 Advanced Laboratory in Applied Group Dynamics (5)

Group experience as method of studying and applying selected theoretical models of group counseling. Participants experience membership and leadership roles. Individual readings and research on selected group counseling models. D.

895 Dissertation (2–15) F. W. Sp., Su; Y.

#### **Higher Education**

The area of higher education consists of graduate programs in college student personnel and higher education administration. The primary mission of this area is to prepare people for leadership roles in colleges, universities, and other agencies devoted to adult learning. Adult learning occurs not only in traditional institutions of higher education, but also in business and industry, social and government agencies, the military, and health care organizations.

These programs differentiate application and theoretical conceptualizations according to degree level. The master's programs focus on the development and application of skills, while the doctoral programs emphasize the study, development, and testing of theoretical concepts. Students progress through the degree levels from M.Ed. or Ph.D. while increasing integration among the components of the individual, organi-zation, and society.

#### College Student Personnel (EDCP)

The college student personnel program focuses upon the knowledge, values, attitudes, and skills needed by entry-level student affairs practitioners. Students in this program are involved in direct services, which are educational and developmental in nature. The master's degree is a two-year program that follows national standards for professional preparation for student affairs practitioners. The deadline for completed applications is February 1.

## College Student Personnel Courses (EDCP)

520 Introduction to College Student Affairs (4) Introduction to field of student personnel including history and development of the profession, roles, and functions of student affairs professionals. Young; F; Y.

#### 521 College Student Development: Theory with Practice (4)

Prereq: S20. Provides an understanding of college student development theories and how they are applied in student affairs. Stewart: F.

#### 522 College Campus/Student Environment: From Theory to Practice (4)

Prereq. S21 Provides an understanding of college environment theories and their application. Stewart: Sp.

523 Multicultural Student Development (4)
Prereq 521. Analysis of theories of multicultural student development in a broad spectrum of areas, with a particular focus on gender, race, and sexual orientation. Theories of multicultural development for individuals and organizations also will be considered. Emphasizes application in higher education settings. Stewart, W.

S44A Leadership Issues of College Students (2) Prereq: S20. Study of theories related to leadership development and student organizations. Future trends and several models are included.

#### S44B Budget Management (2)

Prereq. S20. An introduction to the budgeting processes and issues related to student affairs programs.

#### S44C Residential Campus Issues (2)

Prereq S20. Provides the opportunity to develop knowledge about concerns of residential students.

#### 544D Legal Ethical Issues (2)

Prereq: 520. Study of critical legal and ethical issues that student affairs practitioners confront.

#### 544E Assessment (2)

Prereq: S20. Study of the role of assessment in student affairs administration. The course focuses on issues of retention and campus involvement.

544F Student Learning Imperatives (2)
Prereq: 520. Explores the philosophical base,
organizational patterns, management styles and
practices, and evaluation methods used in the
development of holistic learning in higher education.

## **544G** International Student Services (2) Prereq: 520. Focuses on the rationale for foreign student services, the functions and services

student services, the functions and services performed, and the foreign student experience in institutions of higher education.

544H Wellness Issues of College Students (2) Prerect: 520. A study of the principles, functions, and practices of health education and wellness in regard to the development of college students.

#### S44J Supervision (2)

Prereq: 520. Introduces students to concepts, components, and personnel styles of effective supervision.

S44K Two-Year College Students (2)
Prereq: S20. The study of practices in the two-

## year college setting. S44L Computer Applications and New

Technology (2)
Prereq: 520. Students master skills necessary to understand the use of computers and new technology in their field.

603 Practicum in Student Personnel (3–5)
Must be taken 3 times for total of 12 hrs.
Supervised experiences in offices of the university
or of neighboring educational institutions.
Stewart, Young; F, W, Sp.

## 620 Administration and Organization of Student Affairs Programs (4)

Prereq: S20. Relates theories, skills, and practices of leadership, decision making, organization, and administration to student affairs. Young: W.

#### 622 Readings and Research in Student Personnel (1–12)

Survey, analysis, interpretation, and synthesis of professional literature on college student personnel. Independent, directed research project in area of college student personnel. Stewart, Cutright, Young; F. W., Sp.

#### 720 College Student Affairs: Theories and Research (4)

Introduction of college student affairs field including history, development of the profession, and roles, functions, and issues in the profession. Young, F.

#### 721 College Student Development: Theories and Research (4)

In-depth study of the major theories of college student development that are used in college student affairs. Emphasis on understanding and critiquing the theories and related research. Stewart, F.

#### 722 College Student-Environmental Interactions (4)

Prereq: advanced standing. Explores several personenvironmental theories, emphasizes assessment of environment for purposes of changing environment to foster student development. Stewart: Sp.

#### 743 Advanced Seminar in Student Personnel: Current Issues (2, max 8)

Seminar format concerned with specific professional issue each quarter. Research and guest speakers used extensively. F, W, Sp.

#### 803 Advanced Practicum in College Student Personnel (3–6)

Doctoral-level practicum and seminar providing indepth experiences in selected student affairs offices on various campuses. Stewart, Young: F. W. Sp. Su.

#### 820 College Student Affairs Administration and Organization Theories and Research (4) Study of selected theories of administration,

Study of selected theories of administration, organization, and leadership with specific application to student affairs operations in higher education. Young; Sp.

## 890 Advanced Readings and Research in College Student Personnel (2–6)

Independent studies and specialized projects for doctoral students. Moden, Young; F, W, Sp, Su.

#### **Higher Education (EDHE)**

Higher education focuses on administration and teaching. In administration, the program focuses on preparing individuals for leadership positions in higher education. Required coursework examines the background of higher education, the study of internal organizational standards, policy perspectives, and the principles of finance and governance. In college teaching, the program assists students in examining pedagogy and curriculum development on the collegiate level. Coursework provides an opportunity to examine the theory and practice of college teaching, professional development, and the nature of students and the collegiate environment.

#### **Higher Education Courses (EDHE)**

## 588 Introduction to American Higher Education (4)

8ackground and growth of higher education in the U.S. Present status of various types of institutions. *Dressel, Stewart, Young, F, Su.* 

#### 589 Community Colleges (4)

Prereq 590. Special problems related to administration of community colleges, regional campuses, vocational and technical colleges, and adult education programs. Young.

#### 687 History and Philosophy of American Higher Education (4)

Prereq: \$88 or equivalent. An exploration of the events and concepts that have shaped American higher education. Focus is on the evolution of the undergraduate college, the comprehensive university, and research and graduate education missions. *Ping, Young; F.* 

## 688 Contemporary Higher Education (4) Prereq: 588 or equivalent. A critical analysis of the role of higher education in contemporary American society. Included are examinations of current and ideal roles and of the factors that

American society. Included are examinations of current and ideal roles and of the factors that influence the evolution of American higher education. *Cutright*, *W*.

689 Legal Issues in Higher Education (5)

#### Deals with the history, development, and current status of legal issues in higher education. The course considers basic legal relationships involving: governance; relationship with

690 Issues in Higher Education (1–9)
Prereq: \$90. Ongoing, up-to-date treatment of significant developments in higher education.
Conley. Cutriaht. Stewart. Young.

students, faculty, and staff; federal and state

#### 691 Seminar in Education (4)

regulations, and liability issues. Sp.

Prereq: 35 grad. hrs.; EDRE 501. Students choose area of study; engage in library research, interviews, questionnaires, etc.; and write a substantial scholarly paper. Students must submit a proposal to the instructor by the ninth week of the quarter prior to the quarter enrollment.

#### 695 Thesis (2-10)

#### 778 Assessment and Evaluation (4)

Provides students with an understanding of the principles and practices that are associated with assessment in higher education, Focuses on the reasons for the development of the current assessment movement, and on approaches for improving academic programs and support services. Conley, Moden; Sp.

## 779 Finance and Budgeting in Higher Education (4)

The course is an overview of the principles and practices of financing institutions of higher education. The course will also focus on the structure, process, and skills of building institutional budgets. Moden; Sp.

780 Dynamics of College Teaching (4)
Examination of the intent, current practice and potential improvement of college teaching.
Young; Sp.

#### 781 Directed Experiences in College Instruction (1–10)

Individualized program under guidance of instructor or department which would include field study and experience in college teaching. F, W, Sp.

#### 782 Curriculum Development in Higher Education (4)

Prereq: advanced standing. Critical study of factors and issues involved in curriculum develop-ment. Types of curricula and underlying philosophies. Curriculum research and evaluation in higher education. Young: W.

## 783 Institutional Research and Self-Study in Higher Education (4)

Prereq: advanced standing. Problems of institutional research office including institutional need and methods of data collection and reporting. Principles of long-range planning. Conley.

#### 784 Practicum in Higher Education Administration (3–6)

Practice in working under supervision in offices in the university and other institutions of higher education. F, W, Sp, Su.

### 78S Organization and Governance of Higher Education (4)

In-depth study of internal organizational patterns and structure of a variety of institutions of higher learning. Policy perspectives in higher education. Cutright: F.

**786** Management of Higher Education (4) Prereq: 785. Focus on internal management issues and practices. Conley; W.

788 Policy Perspectives in Higher Education (4) Prereq: 786. Explores public and private policy questions about the success of contemporary higher education. Examines the economic and social benefits for individual citizens and for society as a whole. Conley: 5p.

#### 823 Readings and Research in Higher Education (1–3)

Independent study and specialized research projects for advanced students in field of higher education. (May be repeated for credit.) F, W, Sp, Su.

890 Special Topic Seminar (1-4)
Seminar treatment of areas of current or topical interest in field of higher education. (May be repeated for credit.) W.

895 Dissertation (2-15)

# Department of Educational Studies

http://www.ohio.edu/edstudies/index.html

The Department of Educational Studies provides courses for undergraduate and graduate students in the areas of educational leadership and administration, cultural studies of education, educational research and evaluation, technology in teaching and learning, and international studies in education.

The academic specialties of the department faculty and the courses they teach are interdisciplinary in nature and relate to programs across the entire College of Education. The faculty work in close collaboration with the other two departments in curriculum planning, teaching, advising, and research.

For more information about programs, contact the Chair, Department of Educational Studies, College of Education, Ohio University, McCracken Hall, Athens OH 45701-2979.

## Educational Administration (EDAD)

The Educational Administration Program at Ohio University prepares individuals for leadership positions in K-12 schools and other education agencies. Emphasizing the knowledge, skills, and practices of responsive leadership, the program fosters a vision of humane, engaging, inviting schools where administrators, teachers, and students work democratically to promote academic excellence. The program is committed to an ethic of leadership that is attentive to the human side of school change.

The program places special emphasis on rural and small schools. Coursework and field experiences integrate conceptual and practical knowledge, grounding leadership practice in a thoughtful appreciation of the context in which schooling takes place.

The Educational Administration Program offers graduate degrees at the master's and doctoral levels as well as coursework required for Ohio licensure as an elementary-middle or middle-high school principal or as a superintendent.

## **Educational Administration Courses** (EDAD)

S92A-Z Workshop for School Leaders (1-4)
Designed to provide practicing school leaders with
short courses, workshops, and summer institutes
directed toward their identified needs. Areas of
concentration include: (A) School Business
Functions, (B) Principalship, and (C)
Superintendency. Does not apply to requirements
for graduate degrees in educational administration.

#### 601 Introduction to Educational Administration (4)

Nature and critical tasks of educational administration, problems and issues, purposes, situational factors, processes; qualifications for the job, personal assessment, preparation, inservice training, professional opportunity, and challenge. Su.

**602** Organizational Structure in Education (4) Considers general organizational theory as applied to the existing structure of schools and other educational agencies such as colleges, universities, private, and alternative schools. *Su.* 

#### 603 Human Behavior in Educational Organizations (4)

Provides potential leaders of educational institutions with the theoretical knowledge and skills necessary to function effectively within the human element of educational organizations. F.

## 604 Technology for Administrative Decision Making (4)

This course prepares aspiring administrators to use various technologies including telecommunications and information systems to enrich curriculum and

instruction as well as to manage the business functions of schools and districts. Sp.

#### 611 Educational Law (S)

Prereq: 601. Selected principles of constitutional, statutory, case, and common law affecting schools and school personnel with special reference to Ohio school law. Su.

#### 621 Educational Finance (5)

Examines economics and education; educational finance as type of public finance; theories, concepts, and issues related to programs designed to achieve equalization of educational opportunities; local, state, and federal programs of financial support for education. Su.

631 Personnel Administration in Education (4) Prereq: 601. Organization and implementation of personnel functions. Covers organizational structure, staff procurement, staff selection, staff development, and conditions of service for people in the organization. Competencies in course conceptually oriented to provide understanding of personnel process. *E.* 

#### 640 The Principalship (4)

Prereq: 9 hrs incl 601. Leadership theories and practices. School/ community organization; social-political forces; instructional leadership; teacher appraisal; elementary, middle, and secondary school administration. W.

641 The Principalship—Skill Competencies (4) Prereq: 9 hrs incl 601. Designed for persons aspiring to become administrators. Individualized approach to developing job skills for specific tasks in elementary, middle, and secondary schools in actual job setting and simulated settings. W.

642 The Role of the Principal in Instruction (4) This course examines the role of principal in instructional supervision, leadership, development, and evaluation. It considers the evaluation and selection of instructional programs, techniques of supervision, and approaches to the professional development of teachers. W.

661 Public Relations in Education (4)
Principles, program organization, agents, and
media in effective public relations; models of
communication; attitude change; development
of problem situations and simulations of practical
problem-solving techniques; examples from
public school administration, higher education
administration, and sports administration. E.

671 Community Education (4)
Introduction to philosophy of community
education with emphasis on role of school
administrator in conceptualizing philosophy and
then taking leadership in developing and
implementing community education programs. W.

#### 690 Research in Educational Administration (1–6)

Prereq: 601. Individual research studies. F, W, Sp, Su.

#### 691 Seminar in Education (4)

Prereq: 35 grad. hrs., EDRE 501. Student chooses area of study, engages in library research, interviews, questionnaires, etc., and writes a substantial, scholarly paper. Students must submit a proposal to the instructor by the ninth week of the quarter prior to the quarter of enrollment. F, W, Sp, Su.

69S Thesis (2-10)

D.

## 702 State and National Administration of Education (4)

Prereq: 601. State program of education, state responsibility, educational organization, certification and tenure, national problems in education.

#### 703 Administration of Education in Other Countries (4)

Prereq: 601 Programs, organizational structure, and control of education in other countries. U.S. assistance programs for educational administration in developing nations. S.

#### 731 Conflict Management in Educational Administration (4)

Theories, attitudes, techniques, and strategies for managing conflict, solving problems, negotiating, and decision making in educational organizations. Focuses on understanding conflict and persons involved. Practice for third-party mediators, as well as conflict participants.

#### 734 Competency Development in Personnel Administration (5)

Prereq: 631. Practicum designed to develop competency to perform effectively in area of personnel administration. Includes all aspects of personnel administration as a team concept. Specific competencies developed include writing policy, staff selection, staff evaluation, establishing record systems, career counseling, salary administration, and meeting organizational and staff needs. Competencies developed in terms of actual situation. F.

740 Special Problems of the Principalship (2–6) Prereq: master's degree; practicing principal. Critical appraisal of major problems and issues in elementary, middle, and secondary school administration. Individual and group study procedures.

742 Planning Educational Facilities (5)
Prereq: 601. Helps student to gain an appreciation for importance of facilities to educational enterprises. Acquaints student with principles, processes, and problems involved in identification of need for planning and acquisition of new facilities and for improvements to existing facilities.

744 Leadership in Rural Settings (4)

Analyzes the general and specific skills required for leadership in rural schools. Comparisons are made with leadership demands in urban settings. Examines formal and informal interactions, and individual and collaborative leadership needs. Su.

751 Business Administration in Education (4) Prereq: 601. Helps student develop increased awareness of and appreciation for role and function of business administration in total educational enterprise. Promotes understanding of major task areas and competencies required to become knowledgeable about current theories and recommended practices in administration of business affairs in education. W.

## 752 Problems in Administration of Education (1–6)

Intensive course or workshop for practicing educational administrators. Content of each offering specially selected to meet needs of particular group being served. Amount of credit depends on length of course. Topics include:

- A. Administration in Bilingual Settings
- B. Business Administration
- C. Collective Bargaining in Education
- D. Community Education
- E. Conflict Management in Educational Administration
- F. Educational Facilities Planning
- G. Educational Finance
- H. Educational Law
- I. Leadership
- J. Personnel Administration in Education
- K. Planning and Evaluation in Education
- L. The Principalship
- M. School-Community Relations
- N. The Superintendency
- O. Pupil Transportation
- P. Politics of Education

#### 780 Politics/Policy in Education (4)

Examines ideas related to political power and educational decision making, community power structure, school board member nomination and election, politics and innovations, and administrator's base of influence in community. Reed; Sp.

784 Educational Planning and Evaluation (S) Intended to help advanced graduate students gain better understanding of theories related to and systems and techniques employed in comprehensive planning and evaluation in educational enterprises of all types and levels, and help students gain some competence in application of those theories, systems, and techniques. Sp.

#### 791 Leadership Project— Problem Identification (4)

Individualized field-oriented course designed to assist practicing educator in conducting systematic, in-depth studies to identify critical problem areas in selected phase of school system operation. F, W, Sp, Su.

792 Leadership Project—Implementation (4) Individualized field-oriented course to assist practicing educator in developing skills in identifying techniques and strategies for implementing change related to critical problem areas identified in 791. F, W, Sp, Su.

### 793 Leadership Project— Analysis and Evaluation (4)

Individualized field-oriented course to assist practicing educators in identifying and using techniques for analyzing their practices in implementing change. Complete leadership project (791, 792, and 793) culminates in a written analysis and evaluation under direction of advisor. *F, W, Sp, Su.* 

## 811 Legal Aspects of Educational Administration (4)

Prereq: 611. Intensive study of selected aspects of both case and statutory law, constitutional basis for education, schools in their legal setting, school legislation, and relevant court decisions. Extensive reading in an approved law library required.

**824** Seminar in Educational Finance (5) Helps students gain greater depth of understanding of theories, practices, problems, and issues to foster an increased competence in financing educational enterprises.

#### 831 Seminar in Collective Bargaining in Education (4)

Gives students understanding of collective bargaining movement in education through simulation, readings, guest lectures, media presentations, and discussions. Each student assigned a bargaining team which has responsi-bility for negotiating a contract. Attention given to analyzing contracts between selected employee groups and boards of education, impasse resolution, and contract administration.

844 Seminar in Educational Facilities (5)
Helps students gain greater depth of under-standing
of and competence in planning of educational
facilities and administration of building programs.

## 854 Seminar in 8usiness Administration in Education (5)

Helps students gain understanding of and competence in administration of business affairs in education.

#### 864 Seminar in Public Relations (5)

Prereq: 661. Special topics, new concepts, and specific techniques for public relations in public, private, higher education, and sports administration; indepth investigation of problems of specific interest.

# 880 Rural Schools and Communities (4) Consideration of the relationship between schools and rural communities, including issues related to democratic localism, state and national education agendas, and economic development in rural areas.

881 Organization in Educational Systems (4) Study of organizational and systems theories and analysis of organizational systems. Study of implications of such theories and systems for educational administration.

890 Research in Educational Administration (1–6) Individual research studies. F, W, Sp, Su.

**895 Dissertation (2–15)** *F, W, Sp,* Su.

## Computer Education and Instructional Technology

The master's specialization serves educators in K-12 schools and technical and community colleges who wish to pursue advanced preparation in computer education and technology.

The program prepares classroom teachers to use technology effectively in their teaching and to become technology leaders in their schools or districts.

Graduates of the program who hold an Ohio teaching license will be qualified for the multi-age endorsement in Computer Education and Technology.

The doctoral specialization in Instructional Technology is designed for individuals whose major professional interest is in instructional and informational technologies in elementary and secondary schools or in institutions of higher education.

The program prepares graduates for positions as technology leaders in school districts, state technology consortia, professional development centers, educational technology centers, or distance learning projects; as instructional designers for educational enterprises; and for faculty positions in higher education.

It may also prepare individuals for technology leadership positions in ministries of education and higher education administration.

#### Computer Education and Instructional Technology Courses (EDCT)

501 Technological Applications in Education (4) This course will acquaint students with applications commonly found in educational settings. Students will use application software, hypermedia, e-mail, and the Internet. Emphasis will be on integrating technology across the curriculum. This course will acquaint students with applications commonly found in education.

521 Programming Concepts for Teachers (4) Prereq: 501. This course introduces students to the basic logic in computing. Lego and Logo will be used to design thematic/integrated lessons using Logo programming.

#### 531 Educational Applications of the Internet (4)

Prereq: EDCT 501; EDCT 601. In-depth study of the applications of the Internet in K–12 education. Topics include accessing global information resources, collaborative online learning environments, video conferencing, and distance learning. Students develop instructional activities that integrate telecommunications across the school curriculum.

## 541 Software Integration in the K–12 Curriculum (4)

Prereq: 501, 601. This course provides an opportunity to explore what it means to integrate software in the classroom. We will explore different kinds of software and discuss the kinds of learning opportunities the software can provide. We will focus on software use in the content areas. Legal, ethical, and some social issues associated with software use in the classroom will also be considered.

592 Workshop in Computer Education (1-15) Designed to provide practicing teachers and other instructional personnel with short course workshops and summer institutes directed toward their identified needs. Areas of concentration are (A) Productivity Tools, (B) Information Tools, (C) Network Tools, (D) Hypermedia Tools, (E) Programming Concepts, (F) Curriculum Development, (G) Special Topics, (H) Distance Learning. Effective: spring 2000-2001. F, W, Sp., Su..

## **601** Instructional Design **(4)** Systematic procedures for the design, implementation, and evaluation of instruction.

## 602 Instructional Multimedia for the Classroom (4)

Prereq: 501, 601. Students will use computer technology to design and produce instructional materials, including hypermedia stacks, concept maps, and slide presentations. The materials will integrate a variety of multimedia: text, graphics, animation, speech, sound, and video.

# 636 Media and the Young Adult (4) Theoretical approach to young adult programming and services; analyzing general characteristics of young adults, their information needs, institutional services and operational factors, materials and media, information-seeking behavior, media use, and impact of media.

#### 661 Leadership and Professional Development in Technology (5)

Prereq: 601, 24 grad hours of EDCT. Designed to enhance the principal's or technology coordinator's role as an instructional and building leadership and to become knowledgeable leaders in the use of technology in schools.

690 Research in Education (1–6) Individualized research project.

## **691** Master's Research Project **(4)** Prereq: 35 hrs. Nonthesis option, major paper required.

692 Internship: Theory into Practice (1)
Prereq: perm. The Computer Eduation and
Technology Internship allows the intern to apply
theory to practice in a world setting. The intern
is expected to perform a particular function in
an organization that thas a definite educational
technology focus. Effective: fall 2001-2002.

#### 693 Masters Portfolio (1-3)

Students will develop a professional electronic portfolio and participate in a public showcase. The portfolio is the cluminating experience for master's students. *F, W, Sp, Su*.

#### 695 Thesis (1-10)

#### 697 Analysis of Media Theory, Research, and Instructional Design Model Nomenclature (3)

Prereq: EDRE 501. Review, analysis, and criticism of research in educational media, with interpretation and application of research findings of primary concern. Suggestions for future research in educational media, sequencing of instruction in relation to hierarchies of competence, and design of multimedia instruction explored. D.

## 790 Research Literature in Instructional Technology (4)

Prereq: 720, 750. This course introduces doctoral students to current and historical research in instructional technology and appropriate research methods in the field. F, W, Sp, Su.

## 890 Research in Education (1–12) Guided readings or research, tailored to meet the needs and interests of individual students, in selected topics in instructional technology. F, W, Sp, Su.

**895** Dissertation (1–15) *F. W. Sp. Su.* 

## Cultural Studies in Education (EDCS)

Cultural Studies in Education is an interdisciplinary field that brings perspectives from the humanities and social sciences to bear on the study of education. It recognizes that educational systems are situated in the context of culture, knowledge, and power. Cultural Studies seeks to investigate and analyze the dynamic relationship between school and society with interpretive, normative, critical, and comparative theory and methods.

Both the master's and doctoral specializations in Cultural Studies are designed to meet the academic needs of individuals, and the faculty views the diversity of students in the program as one of its important strengths.

Students in the master's program take core courses in Cultural Studies topics, prepare themselves in one method of inquiry, and, in collaboration with an advisor, develop a plan of study for an individualized concentration. At the end of their programs of study, students complete a master's research project or thesis.

In the doctoral program, students develop programs of study that build upon coursework in Cultural Studies focusing on history and philosophy of education, diverstly issues, gender studies, democratic education, and critical pedagogies. Elaborating an interdisciplinary perspective, the program enables students to construct programs of study that incorporate coursework from a variety of related disciplines such as Philosophy, Communications, Sociology, African Studies, and African-American Studies. Having also focused attention on several methods of systematic inquiry, doctoral students propose, conduct, and present culminating dissertation studies based on original research or creative scholarship.

#### **Cultural Studies Courses (EDCS)**

- 500 History of Western Education (4)
  Survey of education in western world from ancient Judaic schools to major contemporary developments. Emphasis on institutional developments and cultural events that accompanied them.
- 501 History of Education in the U.5. (4) Survey of educational developments from colonial America to present. Readings include both primary and secondary sources. Emphasis on institutional developments and cultural events that accompanied them. F; Y.
- **502** Evolution of Educational Thought (4) Study of selected educational theorists and cultural assumptions that influenced their ideas. Where available, readings are from primary sources. A
- 503 Philosophies of Education (4) Survey of European and American educational theorists and movements from a philosophic perspective. Contemporary educational thought in U.S. emphasized. W; Y.

## 504 Social Structure and Change in Education (4)

Studies in interaction of social structure and educational reform. Concepts of class, status, bureaucracy, technocracy, and cultural pluralism assessed in their relationships to sociology of knowledge and educational alternatives. *Muhammad; Sp; Y.* 

- 505 Comparative Cultures and Education (4) Studies in learning as a social process with emphasis on the non-Western experience. Introduction to techniques of comparative analysis and ethnographic examination of learning systems. Y.
- 506A Education and Development in Africa (4) Interdisciplinary course focusing on the role of learning systems in changing African societies. Historical and ethnographic studies of precolonial, colonial, and post-independence African education. Education and training as tools for contemporary change and socioeconomic development. Howard; F.
- 507 Programs in International Education (3) Assistance programs to education in developing nations; foundation programs, UNESCO programs, A.I.D. programs. Assistance programs of other nations. Objectives, structures, funding, organization, and plans for implementation. D.

## S08 Poverty, Education, and International Development (S)

Interdisciplinary course focusing on poverty in African, Asian, and Latin American societies and the uses of education, including nonformal education, adult education, and literacy programs, to promote rural development. Problems in planning and implementation. Social impact of intervention. Y.

#### 509 Political Philosophies of Citizenship Education (4)

Use of popular literature and documentary evidence to critically examine citizenship education as seen by liberals, conservatives, and socialists. Focus on relationships among social/political crises, citizenship philosophy, and issues in education. A.

## 510 Introduction to Cultural Studies in Education (5)

Interdisciplinary course that brings perspectives from the humanities and social sciences to bear on the study of education. Students investigate and analyze the dynamic relationship between education and culture with interpretive, normative, critical, and comparative theory and methods. Howard, Hutchinson, Muhammad; F; Y.

## 550 Teaching Strategies for Cultural and International Understanding (4)

Prereq: EDRE S01. Psychological and sociological foundations of cultural values and ways of life investigated. Strategies for developing cross-cultural understanding and cooperation studied and developed. Emphasis upon innovative approaches to learning for elementary and secondary school pupils. Practicum provided. D.

#### 605 Individual Studies in Comparative Education (2–6)

Studies in an area of national development. D.

- 606 Seminar in Comparative Education (3–5) Topical interdisciplinary seminar focusing on variable themes. Possible topics include women, education, and development, Third World children and youth, etc. Sp.
- 700 Advanced Foundations of Education (4) Seminar for selected interdisciplinary studies in social, cultural, and philosophic foundations of education. *S*; *Y*.

## 706 Advanced Seminar in Comparative Education (S)

Emphasis on interdisciplinary treatment of problems and concerns. Contemporary situations investigated. Techniques for comparative study of educational systems and developments.

#### 709 Internship in Comparative Education— United States or Abroad (10–15)

One-year assignment with stateside operation (such as aiding or assisting in comparative education program) or assignment abroad. Interns required to have had experience in teaching in the U.S. D.

## 801 The School as a Dynamic Social Institution (5)

Prereq: master's degree, 800 or equiv. School as changing social system; changing philosophies, functions, and cultural styles of school. Politics, control, and conflict resolution in school.

## Educational Research and Evaluation (EDRE)

The College of Education offers both a master's and Ph.D. program in Educational Research and Evaluation (EDRE) to prepare graduates for research and faculty positions as well as leadership roles in research organizations in Ohio and around the world. This program offers students courses in several areas—research design, testing and measurements, questionnaire development, statistics, computer programming, evaluation, and qualitative research. The student-faculty ratio is quite favorable, and there are opportunities for students to interact with faculty and to become involved with both new and ongoing projects and research in the United States and sometimes overseas.

Low minimum course requirements allow students to design individualized programs with courses across the University. In particular, we often have students taking courses in higher education, mathematics, psychology, and computer science. In addition, many students develop areas of interest within various specializations of teacher education.

Our students come from a variety of undergraduate disciplines. While there are no specific requirements, we seek students with a reasonable background in mathematics (calculus and linear algebra) or in an area closely related to mathematics. Statistical and/or computer skills are desirable.

## Educational Research and Evaluation Courses (EDRE)

501 Introduction to Research Methods (4) Methods of research in education. Selecting, planning, and evaluating research problems. Barcikowski, Brooks, Johanson; F. W. Sp., Su; Y.

## **510** Educational Measurements (4) Construction of tests, item analysis, and statistics for test scores. Reliability, validity, and standard scores. Brooks, *Johanson*; *F*; *Y*.

## 690 Readings in Educational Research and Evaluation (1–4)

Guided readings course, tailored to meet needs and interests of individual students, in selected topics in educational research, measurement, statistics, and evaluation. *D*.

## 692 Special Projects in Educational Research and Evaluation I (1–8, max 8)

Prereq: 6 hrs in area. Individual research in problem areas in educational research, statistics, measurements, and evaluation. May be a theoretical or critical evaluation of recent research in some area in regard to objectives, content, and methodology. Projects may be individual or small groups. D.

## 593 Seminar in Educational Research and Evaluation (1–5, max 10)

Prereq: perm. Special problems in elementary education, secondary education, counselor education, college student personnel, cultural studies, higher education, international and comparative education, special education, and school administration. D.

695 Thesis (2-10)

D.

- 711 Techniques of Test Development (5) An introduction to classical (true-score) test theory including such topics as reliability, validity, generalizability theory, standard-setting, and differential item functioning. *Johanson; W.*
- 712 Research in Educational Measurements (5) An introduction to item response theory (IRT) including such topics as test construction, equating, data simulation, parameter estimation, and computer adaptive testing. *Johanson; W.*

#### 720 Educational Statistics (5)

Measures of central tendency, measures of variability, standard scores, normal curve, simple regression, correlation, point estimates, testing statistical hypotheses, confidence intervals, t-distributions, chi-square distributions, and F-distributions. Use of computer statistical packages. Barcikowski, Brooks, Johanson; F, Su; Y.

- 721 Regression Analysis in Education (5) Prereq: 720. Multiple and multivariate regression, one-way and two-way analysis of variance (univariate and multivariate), contrasts. Use of computer statistical packages. *Barcikowski, Brooks; W, Su; Y.*
- 722 Multivariate Methods in Education (5)
  Prereq. 721. Factor analysis, canonical correlation
  analysis, discriminate analysis, higher order factorial
  designs, nested designs, analysis of covariance,
  repeated measures designs, and analyses where
  there are missing values. Use of computer statistical
  packages. Barcikowski, Brooks; Sp; Y.

#### 723 Questionnaires and Nonparametric 5tatistics in Education (5)

Prereq: 720. Emphasis on questionnaire design and analysis using nonparametric statistics. Scaling, sampling, and selected parametric pro-cedures are included. Barcikowski, Johanson, Brooks; W; D.

724 Research in Educational Statistics (4)
Prereq: 722. Examination of research designs
involving hierarchical linear models. *Barcikowski; D.* 

## 731 Computer Science Applications in Education I (5)

Prereq: 720 concurrent. Use of Monte Carlo methods in educational statistics using the SAS programming language. *Barcikowski, Brooks; F; Y.* 

## 732 Computer Science Applications in Education II (5)

Prereq: 721 and 731 concurrent. Advanced application of SAS Proc Matrix to problems in education. *Barcikowski, Brooks; D.* 

733 Research Design in Education (5)
Prereq: 720 and 721. Critical evaluation and development of research studies. Emphasis on development of problems which admit to scientific investigation, statement of hypotheses, definition of terms, problems of sampling, statistical methods, and interpretation and generalization of findings. Barcikowski, Brooks, Johanson; Sp; Y.

## 750 Introduction to Qualitative Methods in Education (4)

Introduction to the experience of qualitative data collection methods in educational research. Review of origins, theory, and design of method; issues of validity, reliability, and human subject ethics. Howard.

## 751 Qualitative Interviewing Methods in Education (5)

In this course we examine the process of designing studies in which qualitative interviews are performed for data collection purposes. Students will conduct in-depth personal and/or focus group interviews, prepare transcripts of interviews, and interpret as well as evaluate the qualitative data they collect. Different approaches to interpreting interview data will be studied (e.g. thematic, conceptual, narrative, metaphor, grounded theory, etc.).

752 Ethnographic Methods in Education (5) In this course we examine the process of designing and executing ethnographic research studies. Students will learn to engage in different forms of participant observation, write field notes, conduct ethnographic interviews, and analyze cultural artifacts and documents. Different approaches to interpreting ethnographic data will be studied including domain, taxonomic, componential, and thematic analyses.

790 Advanced Readings in Educational Research and Evaluation (2-8, max 15) Guided readings course, tailored to meet needs and interests of individual students, in selected advanced topics in educational research, measurement, statistics, and evaluation. May be a theoretical or critical evaluation of recent research in some area in regard to objectives, content, and methodology. These projects may be individual or small groups. D.

792 Special Projects in Educational Research and Evaluation II (2–10, max 15) Individual research in problem areas in research and evaluation. May be a theoretical or critical evaluation of recent research in regard to objectives, content, and methodology. Projects may be individual or small groups. D.

793 Advanced Seminar in Educational Research and Evaluation (1–6, max 15) Advanced seminar in selected topics in educational research and evaluation, including current trends, issues, and techniques. *D.* 

895 Dissertation (2-15) D.

### **Educational Leadership**

## Educational Leadership Courses (EDLE)

710 Cultural and Contextual Foundations of Leadership (4-5)

Investigation of cultural and social influences on the development of leadership in educational settings. Comparative models of leadership presented in their special settings.

#### 720 Moral and Ethical Dimensions of Leadership (4-5)

Examination of the moral dimensions of the process and content of leadership from theoretical and practical perspectives. Emphasis is placed on the application of ethical thinking and concepts to leadership issues and problems in educational settings.

730 Leadership Seminar in Education (4-5) A survey course emphasizing the philosophical, social and political aspects of leadership. Focusing specifically on leadership for change, especially for leaders in education.

#### 740 Organizational Theory for Educational Leaders (4-5)

Examination of appropriate theory to assist educational leaders in working with diverse groups in an organizational setting.

## Department of Teacher Education

http://www.ohio.edu/teachered/index.html

The Department of Teacher Education offers programs of graduate study designed to meet the academic and professional requirements of those involved in teaching, learning, and curriculum development.

Master's degree programs are offered in teacher education, including emphases in middle child education, reading, adolescent to young adult education, special education, mathematics education, and curriculum and instruction/learning. An initial teaching license may be pursued in the following areas: middle child, adolescent to young adult, or special education.

The doctoral program in teacher education is designed to prepare curriculum and instruction personnel to serve in schools, two-year community or technical colleges, and university settings. The Ph.D. program provides a common core of experiences. Areas of specialization include curriculum and instruction/learning, reading and language arts, social studies education, mathematics education, middle level education, and special education.

To pursue graduate study, you must meet established graduate entrance requirements and be accepted by the departmental graduate committee. Depending upon the grade-point average you earned as an undergraduate, you may be required to submit the results of the Graduate Record Examination (verbal and quantitative) or the Miller Analogies Test if you are applying for master's degree study. If you are applying for doctoral study, you must submit Graduate Record Examination (verbal and quantitative) or Miller Analogies Test scores.

Students not seeking a degree may pursue graduate courses on a nondegree basis in a planned professional development program.

You should arrange to complete the application process a month in advance

of the term in which you plan to begin study, since you can take the Graduate Record Examination only on certain dates throughout the year. Submit your application for financial aid by March 15 to receive consideration for the following academic year.

For more information about programs, contact the chair, Department of Teacher Education, or the Office of Graduate Studies in the College of Education, 124 McCracken Hall, Athens OH 45701.

#### Teacher Education/ Curriculum and Instruction Courses (EDCI)

510 Principles of Curriculum (4)

Major curricular movements, principles of curriculum development, forces affecting what is taught, curriculum evaluation, and recent trends including content area national and state standards. F. Su; Y.

510L Laboratory in Principles of Curriculum (1) Prereq: enrollment in 510. Application of curriculum theory, development, and evaluation in clinical/field settings including development and teaching of standards-based lessons. F, Su; Y.

511 Developing a Thinking Skills Program for the Elementary/Secondary Classroom (4) Examines current research and theory about the teaching of thinking skills. Emphasis on the integration of theory, research, and classroom

514 The Kindergarten Curriculum and the Kindergarten Child (6)

Provides students with opportunity to develop understanding of kindergarten child and curriculum. Focus is on helping develop personal teaching philosophy based on current theory, research, and practice. Assists in developing teaching techniques and teaching materials for kindergarten children. Y.

520 Foundations of Reading Instruction— Elementary (5)

Prereq: EDRE 501. Current programs, materials, and practices in reading instruction; developmental concept, emphasizing optimum realization of pupil potential, and use of reading in total school curriculum. F, Su; Y.

- **521** Foundation of Language Instruction (5) Prereq: EDRE 501. Current programs, materials, and instructional practices in language-arts curriculum. Treatment of both impression and expression aspects of oral and written communication, identification and individual investigation of problem areas. *W*; *Y*.
- 522 Diagnosis: Reading/Language (5–15)
  Prereq: 520 or 526. Correlation of variability in reading proficiency with incidence of retardation and disability. Exploration of causes of failure and concept of multiple causation. Review of specialized materials and instructional efforts. Systematic observation of cases of reading disabilities and preparation of case report. W; Y.
- 523 Reading/Language: Laboratory (5–15)
  Prereq: 522. Application of developmental approach to problem cases in reading instruction, participation in diagnostic examination, parent

and teacher conferences, individual procedures in tutoring, staffing of cases, and preparation of reports. (Weekly group discussion period, lab sessions arranged ) 5p; Y

524 Literature for Children and Adolescents (5) 5eminar in critical analysis of research and theory related to children's and adolescent literature Opportunity to study individual problems, Sp. Y

526 Secondary Reading Instruction (5) Materials, methods, and techniques of secondary reading instruction for teaching adolescent learners of various abilities. Emphasis on diagnosis of reading difficulties and adaptation of materials and teaching methods for content area instruction. Su; Y

#### 530 Problems and Practices in Modern Elementary Mathematics—Practicum (4)

Preregi EDRE 501. Modern elementary mathe matics curriculum with emphasis on why changes are occurring. Nature of changes as reflected from experimental programs; effect on teaching methods. Implementation of these changes in the classroom, 5p; Y.

540 New Programs and Practices in Science (4) Prereq: EDRE 501. New programs and trends in science teaching identified and evaluated. Philosophy, content, and grade level placement of topics in federal, foundation, and privately sponsored experimental programs in elementary and/or secondary science education identified and practiced in a classroom setting. Su; Y.

#### 541 New Topics in Science and Science Education (2-6)

Prereq: teaching experience. Modern advances in science and current science education topics to determine suitable content, apparatus, and grade level placement for presentation in schools. Development and use of curriculum guides, curriculum models, modern units, outdoor education, science fairs, field trips, programmed materials, uses of technology, and similar methods of advancing science education. D.

542 Seminar in Science Education (2-6) Prereq: bachelor's degree. Provides elementary, middle, and secondary school teachers with a variety of techniques that enable them to integrate new concepts of science education into their teaching, such as environmental education. population education, energy conservation, world hunger, food problems, outdoor biology, etc. D.

#### Programs and Practices in Elementary Social Studies—Practicum (4)

Prereq: EDRE 501. Trends in contemporary social studies including materials and models for developing historical reasoning, geographic literacy, multiple perspective analysis, and social justice. D.

#### Advanced Studies of Children and Adolescents (5)

Prereq: 20 hrs of education and/or psychology. Intensive study of research in child development from conception to maturity and implications for educational practices. W, Su; Y.

#### 592 Workshop in Curriculum and Instruction (1-15)

(Max of 8 hrs may be counted toward M.Ed. requirements.) Designed to provide practicing teachers and other instructional personnel with short courses, workshops, and summer institutes directed toward their identified needs. Areas of concentration are: (A) Language Arts, (B) Social Studies, (C) Science, (D) Mathematics, (E) Reading, (F) Kindergarten, (G) Individualizing Instruction, (H) Team Teaching, (I) Interaction Analysis, (J) Developing Behavioral Objectives, (K) Curriculum Development, (L) Interdisciplinary Topics, (M) Special Topics, (N) Special Education Topics, (O) Supervision of Instruction, D.

610 Elementary School Curriculum (S) Prereg: EDRE 501 Curriculum as a basic educational concern; issues involved in selecting

and organizing content; systematic study of curriculum development in elementary school, F; Y

#### 612 Middle Childhood Curriculum (4) Prereq: 510. Critical examination of programs purposes, and practices of schooling for middle

level learners, from upper elementary through junior, middle, and high schools, with emphasis on curriculum articulation within and across levels of schooling. Y

#### 613 High School Curriculum (4)

Prereq: 510. Study of high school curriculum including emphasis on sources of curriculum and major curriculum movements, study of current issues and program alternatives, and development and evaluation of high school curriculum. 5p; Y

#### Advanced Principles of Teaching and Learning (4)

Critical appraisal of research in areas of learning and teaching Study and development of instructional models as applied to classroom teaching and learning. W, 5u; Y.

#### 660L Laboratory in Advanced Principles of Teaching and Learning (1)

Prereq concurrent enrollment in 660. Application of instructional models related to Pathwise and Praxis in clinical/field settings. W, 5u; Y.

690 Research in Education (1-6) Individualized research project. F, W, Sp, 5u; Y.

#### 691 Master's Research Project (4)

Prereg: 35 graduate hrs in special education. Student conducts a review of the literature pertinent to his/her major field of study and designs implements an applied, action research project. F, W, 5p; Y. Advisor.

692 Practicum: Secondary Education (4) Prereq: perm. Practical applications of theory in educational setting. D. Advisor.

695 Thesis (1-10) F, W, Sp, 5u; Y.

#### Middle Level Education: Theory, Philosophy, Curriculum, and Practices (5)

Prereq: 612. Analytical investigation of the historical, philosophical, and theoretical foundations and developmental characteristics relative to middle level education; analysis of exemplary practices of middle level curriculum and educational programs. Review of major theories, relevant research, and the study of contemporary middle level structures and programs. D.

#### Advanced Seminar in Middle Level Education (5)

Critical analysis and discussion of theory, research, major issues, problems, and trends in the field of middle level education with particular emphasis on future plans, projections, and orientations. The seminar will provide a forum for students and professor interaction relative to new ideas and issues in the middle level education movement. D.

715 Theories of Curriculum Change (5) Prereq: 660. Major curriculum models and their underlying theory. Critical reading and interpretation of research related to curriculum change and effectiveness. Applications of theory and

#### Theories of Instructional Design and Evaluation (5)

research in new models. F; Y.

Prereg: 660, 715. Theories and models of instruction, their psychological and philosophical basis; construction of models of instructional design, and their evaluation to effect desired learning outcomes. W; Y.

719 Curriculum and Instruction Practicum (6) Prereg. 715, 716. Supervised experiences in analysis and application of theories and techniques of curriculum change and instructional change in school setting. D.

#### foundations of Elementary Reading Instructions (5)

Critical evaluation of literature and recent research on objectives, content, and methodology. History of instruction, current problems and issues, recent trends and emphases in teaching practices. Impact of dominant theories of learning and philosophies of education, Research design and methodology in scientific investigations, F: Y.

721 Foundations of Language Instruction (5) Critical evaluation of literature and recent research on objectives, content, and methodology. History of instruction, current problems and issues, recent trends and emphases in teaching practices, impact of dominant theories of learning and philosophies of education. Research design and methodology in scientific investigations. Rebottini, W; Y.

722 Diagnosis: Reading/Language (5-15) Prereg: 720 or 726. Correlation of variability in reading proficiency with incidence of retardation and disability. Exploration of causes of failure and concept of multiple causation. Review of specialized materials and instructional efforts Systematic observation of cases of reading disabilities and preparation of case report. W; Y.

723 Laboratory Reading/Language (S-15) Prereg: 722. Application of developmental approach to problem cases in reading instruction; participation in diagnostic examination, parent and teacher conferences, individual procedures in tutoring, staffing of cases, and preparation of reports. (Weekly group discussion period, lab sessions arranged.) 5p; Y.

#### 724 Literature for Children and Adolescents (5)

Seminar in critical analysis of research and theory related to children's and adolescent literature. Opportunity to study individual problems.5p; D.

726 Secondary Reading Instruction (5) Materials, methods, and techniques of secondary reading instruction for teaching adolescent learners of various abilities. Emphasis on diagnosis of reading difficulties and adaptation of materials and teaching methods for content area instruction. Su: Y.

#### Curriculum in Elementary Education-Mathematics (4)

Prereq: Teaching experience. Critical evaluation of literature and recent research on objectives. content, and methodology. History of instruction, current problems and issues, recent trends and emphases in teaching practices. Impact of dominant theories of learning and philosophies of education. D.

#### 740 Curriculum in Science Education (4)

Prerea: teaching experience. History of science instruction, curriculum problems, issues, recent trends and emphases in teaching practices. Impact of dominant theories of learning and philosophies of education on current curriculum changes in science. Critical review of existing conventional programs used as a background for examining experimental programs. Emphasis on historical development of science education from dominance of nature study and aesthetics to modern experimental programs. D.

#### 750 Inquiry and Value Clarification in Social Studies (4)

Prereq: 550 or 551. Critical discussion of curricula for the social sciences, social life in classrooms, schools and communities, and social justice. Emphasis is placed on active teaching, inquiry, problem-based and service learning, teaching of social studies. D.

#### 760 Readings and Research in Human Development (3–5)

Interpretation of scientific literature on human development as related to classroom experience in preschool through adolescence. Independent projects and solving selected educational problems. D.

790 Advanced Seminar in Education—Research (4) Review of current literature and research in education. Preparation of research proposal. *D.* 

#### 800 Advanced Dynamics of Human Learning (S)

Prereq: master's degree. Study and critique of major theories of learning and human development; analysis of present and future social and cultural changes and their potential impact on human learning and development. F; Y.

#### 802 Dynamics of Change in Educational Institutions (5)

Prereq: master's degree, 800, 801, or equiv. Analytical study of theories, concepts, and strategies of change, and roles of change agents as related to educational institutions and programs. Case studies and field experiences related to change are examined with emphasis on planning, analysis, and evaluation. *Sp; Y.* 

#### 820 Research and Curriculum in Elementary Education Reading (4)

Critical evaluation of literature and recent research on objectives, content, and methodology. History of instruction, current problems and issues, recent trends and emphases in teaching practices. Impact of dominant theories of learning and philosophies of education. Research design and methodology in scientific investigations. *D.* 

## **821** Field Experience: Reading (5–15) Prereq: 720 or 726. Supervised field experiences in reading. *D.*

822 Field Experience: Language (5–15) Prereq: 721. Supervised field experience in language. *D.* 

#### 823 Independent Study: Reading (5–15) Prereq: 720 or 726. Independent study with topic restricted to some aspect/level of reading instruction. *D.*

**824** Independent Study: Language (5–15) Prereq: 721. Independent study with topic restricted to some aspect/level of language instruction. *D.* 

#### Practicum in Secondary Education— English (S)

In-depth study of school system and its English curriculum with critique by faculty and report by student using available research. D.

#### 828 Practicum in Secondary Education— Modern Foreign Languages (5)

In-depth study of school system and its modern foreign language curriculum with critique by faculty and report using available research. D.

#### 830 Research in Elementary Education— Mathematics (4)

Research design and methodology in scientific investigations. D.

**840** Research in Science Education (1–6) Critical evaluation of recent research on objectives, content, and methodology in science education. Research design and methodology of these investigations studied in detail. Review of microfilm research studies and abstracts made to identify areas and problems requiring further research. *D.* 

841 Practicum in Science Education (2–6) In-depth study of theory and foundations of science curricula and instructional practices within given school system; analysis of research as it applies to science education in schools. D.

#### 8SO Seminar in Social Studies Education: Curriculum in Social Studies (3)

Prereq: 8 hrs grad work in social studies education. Post-master's analysis of social, curricular, and instructional theories of various contemporary schools of thought in social studies. *D*.

#### 851 Seminar in Social Studies Education: Program Analysis (3)

Prereq: 850. In-depth analysis of school system and its social studies curriculum. D.

#### 8S2 Seminar in Social Studies Education Research (3)

Prereq: 851. Identification of reasonable researchable problems in social studies and development of appropriate research design. *D.* 

## 869 Writing for Professional Publication in Education (S)

Prereq: admission to doctoral study. This course is designed to introduce doctoral students to the professional publication process. Students will become familiar with editorial policies of relevant periodicals, identify various publication outlets, and review a manuscript using editorial criteria. The course culminates with a manuscript or comparable product submitted for publication. W.

870 Legal Issues in Special Education (S)
This course provides an in-depth and critical study of the historical evolution of legal issues in disabilities with attention to its changing impact on policy and service delivery for people with disabilities. Particular emphasis is placed on special education law as it applies to public schooling. D.

#### 872 Critical Issues and Current Trends in Special Education (5)

The intention of this course is to examine the most salient issues and questions facing the field of special education at the onset of the next millennium. Divergent perspectives regarding these challenges that currently confront the profession will be analyzed and evaluated. D.

874 Applied Research in Disabilities (S)
This course provides an overview of applied interdisciplinary research on disabilities. Research will be grouped and analyzed according to the type of methodology employed, including field-based quantitative investigations, single-subject/applied behavior analysis designs, qualitative studies, and experimental and quasi-experimental approaches. D.

#### 876 Collaborative Leadership in Special Education Teacher Education (5)

The demand being placed on leaders in the field of special education is changing due to the emphasis placed on inclusion and collaboration. The purpose of this course is to provide students with insight into the fundamental skills necessary for leaders in special education teacher education. Through readings, guest speakers, and individual projects, students will develop a leadership style and network that will enable them to function successfully in the field of special education teacher education. D.

880 Practicum in Special Education (2-15)
This practicum provides applied learning experiences in a university, public school, governmental office, or agency to participate in professional activities such as college teaching, program development, grant writing, curriculum development, materials development, in-service personnel instruction, special education issues analysis, policy development, and/or program management. Students will collaborate with professionals in special education, related services, and/or their professional colleagues. It will be a field-based investigation intended to connect theory and research with practical applications. D.

**890** Research in Education (1–12) Prereq: admission to advanced standing. F. W. Sp., Su; Y.

**895** Dissertation (1–15) *F, W, Sp, Su; Y.* 

#### **Special Education**

The College of Education offers a master's degree in Education with a major in Special Education for a teacher license in the following: Intervention Specialist for Mild-Moderate Educational Needs (to serve students with specific learning disabilities, mild mental retardation, mild developmental handicap, and/or emotional/behavioral handicap); Intervention Specialist for Moderate-Intensive Educational Needs (to serve students with moderate-severe mental retardation and/or multihandicapping conditions); or Early Childhood Intervention Specialist (to serve students with special needs ages 0-8). Each program meets the Ohio teacher licensure requirements. Persons holding no previous teacher license/certification are encouraged to apply. Specific training is provided for all students in assessment, curriculum planning, career development, teaching methodologies, prescriptive and remediation techniques, behavioral management, collaboration, technological applications, research methods, and educational foundations.

Additional information concerning these programs may be obtained from a special education faculty advisor or from the Office of Graduate Studies, Student Personnel Services, McCracken Hall 124, Ohio University, Athens OH 45701, 740.593.4413.

#### **Planning Graduate Programs of**

Study. Before or while completing the first 16 credit hours of graduate study, students must meet with their advisor to clarify personal and professional goals. which are to be written on Form A. Before completing 25 credit hours, students should plan a graduate program of study based on their professional goals. The graduate program of study is to be approved by the advisor who forwards it to the graduate committee for final approval. Any change in a graduate program of study must be approved by the advisor and the graduate committee and be filed with the student's original program of study.

Students must complete a minimum of 48 graduate hours of coursework. The number of hours required is determined in consultation with their advisor and is based on previous experience and areas of preparation. A typical intervention specialist teacher license program is 57 hours for a person with a previous elementary teacher license or certification and it will require 82 hours for persons seeking their initial teacher license in a single area and 96 hours for a dual license. A typical non-license program of study totals 48 hours.

#### Requirements for Continuation.

Students must maintain a 3.00 average to remain in the program.

## Special Education Courses (EDSP) 570 Nature and Needs of Exceptional Children and Adults (5)

An introductory, survey-level course presenting an overview of individuals with exceptionalities, Class members will collectively examine and evaluate a variety of educational, vocational, and social programs for exceptional children and adults. F, W, Y.

#### 571 Curriculum Planning for Learners with Special Needs (4)

Prereq: 5 hrs in special education. Students conceptualize a rationale, a philosophy, and a procedure for analysis, selection, and development of curricula and materials fitting to the goals of the school and to the individual needs, abilities, and interests of exceptional learners. Skills are developed in planning a program curriculum, a subject curriculum, a unit of study, daily lesson plans, and selecting instructional materials. Su; Y.

## 572 Career Development and Transition Planning for Individuals with Disabilities (4)

Prereq: 5 hrs in special education. A comprehensive overview of the continuum of vocational options and procedures for preparing exceptional children and adults to fulfill their career roles as family members, as community residents and as workers. W; Y.

#### 573 Assessment of Learners with Special Needs (4)

Prereq: 5 hrs in special education. Formal and informal methods of assessment, screening, and classification, collections, and appropriate application of clinical data utilizing laboratory experiences and multidisciplinary consultations. F; X.

#### 574 Behavioral Management for Learners with Special Needs (4)

Prereq. 5 hrs in special education. 5tudy of student and teacher needs and behaviors considered when selecting appropriate management methods for a specific situation and when establishing a classroom management plan. Develops skills in establishing classroom expectations, consequences, specific intervention procedures, and a comprehensive management system. *F;* Y.

## 575 Collaboration and Consultation in Special Education (4)

Prereq: 5 hrs in special education. Examines issues in parent/teacher, teacher/teacher, and teacher/student/parent interactions such as: consultation, collaboration, communication, attitudes, problems and solutions, when to counsel, the role of exceptionalities, family dynamics, parent groups, legal issues, economics, expectations, and home and school environment. The development of collaboration and consultation skills is emphasized. W; Y.

## 576 Nature and Needs of Learners with Moderate-Intensive Educational Needs (4)

Focuses on analysis of etiologies, characteristics, and diagnosis of learners with moderate to intensive educational needs (including those with moderate, severe, or profound mental retardation; physical and sensory impairments; and medical and behavioral disabilities) and the theoretical and therapeutic implications for transdisciplinary coordination of life span planning and service delivery. Topics covered are medical communicative, and psychosocial aspects of disabilities; as well as legal, ethical, cultural, family, and advocacy issues from birth through adulthood. F; Y.

#### 577 Methods and Materials for Learners with Moderate-Intensive Education Needs (4)

Prereq: 576 and 5 hrs in special education. Focus is upon design and implementation of multifactored/transdisciplinary assessment, curricular adaptations/development, IEP planning, instructional strategies, adaptive equipment/materials, evaluation, and methods of structuring and arranging training environments from a life span/interagency perspective for persons with moderate to intensive educational needs. *Sp; Y.* 

#### 578 Nature and Needs of Learners with Mild-Moderate Educational Needs (4)

Cross-categorical orientation to disability areas of specific learning disabilities, emotional/behavior disorders and mild mental retardation. Topics include etiology, definitions; identification and assessment procedures; educational services; cognitive academic and social-emotional characteristics; life span ramifications, and current issues in the field. F; Y.

#### 579 Methods and Materials for Learners with Mild-Moderate Educational Needs (4)

Prereq: 578 and 6 hrs in special education. Organization and methods of selection, planning and teaching of appropriate units in the special classroom, emphasis on implementation of current theory and research to strengthen academic-personal-social-vocational adjustment of children with mild-moderate disabilities. *S; Y.* 

#### 670 Technological Applications in Special Education (4)

Prereq: 5 hrs in special education. Provides knowledge and experience necessary to use microcomputers and other technology with persons who have special needs considering the functionality of hardware, software and peripherals. Focus on using Computer Aided Instruction and other technology including: compensation for sensory, physical, communications and learning handicaps. W; Y.

## 671 Interventions for Students with Emotional and 8ehavioral Needs (4)

Prereq: 574 and 5 hrs in special education. Emphasizes skill development in evaluation and functional behavior assessment methods, social skills training, crisis intervention, self-management techniques, psychoeducational interventions, medication use and collaborating with other professionals. *Sp; Y.* 

### 680 Practicum in Moderate-Intensive Educational Needs (4-8)

Prereq: 35 hrs in special education. Practical, field-based, learning experience involving classroom observations and teacher aiding activities as well as independent planning and practice teaching. Complete a minimum of 20 hours of field work per college credit hour in an approved special education placement. F, W, Sp; Y.

#### 681 Graduate Practicum in Mild-Moderate Educational Needs (2–8)

Prereq: 35 hrs in special education. A practical, field-based learning experience involving classroom observations and teacher aiding activities as well as independent planning and practice teaching. Complete a minimum of 20 hours of field work per college credit hour in an approved special education placement. Gut, Jageman, Sparks, Yanok; F, W, Sp; Y.

#### 682 Graduate Practicum in Early Childhood Special Education (2–8)

Prereq: 35 hrs in special education. A practical, field-based learning experience involving classroom observations and teacher aiding activities as well as independent planning and practice teaching. Complete a minimum of 20 hours of field work per college credit hour in an approved special education placement. F, W, Sp; Y.

## Professional Laboratory Experiences

Professional laboratory experiences are designed individually by the director of field experience in consultation with your graduate advisor. The experience is planned as a meaningful extension of your experience as a teacher, counselor, or administrator. In general, undergraduate student teaching is a prerequisite for all graduate-level laboratory experiences.

## Professional Laboratory Experiences Courses (EDPL) 560 Internship in Education (3–9)

Prereq: 9 hrs grad work in education. Teaching certificate and experience for interns in administration and supervision. Internship in school administration, supervision of instruction, or classroom teaching for minimum of one quarter, full time. Following brief period of orientation to school and community, assumption of increasing responsibility under direct supervision of staff member of school system. Functioning as classroom teacher with regular supervision, as team member in team-teaching situation, or as assistant to administrator or supervisor. Weekly seminar conducted by college staff and public school associates. F, W, Sp, Su; Y.

- **561** Internship in Education (3–9) Prereq: 9 qtr hrs graduate work in education. Continuation of 560. See 560 for description. *F, W, Sp;*
- 562 Student Teaching (3–15)
  Prereq: perm. In-school student teaching
  experience. Capstone experience in the master's
  program in secondary education with teacher
  certification. F, W, Sp; Y.
- 563 Student Teaching (3–15)
  Prereq: perm. Student teaching professional experience extends 562. Capstone experience in the master's program in secondary education with teacher certification. F. W. Sp. Y.
- 565 Student Teaching Seminar (1–3)
  Prereq: 562, 563. Seminar to accompany
  graduate level student teaching. Is a part of the
  masters in secondary education program with
  teacher certification. Seminar processes student
  teaching experience. F. W. Sp; Y.
- 570 Supervision of Student Teaching (3–9) Prereq: teaching certificate and experience. Principles and techniques in supervision of student teaching and other professional laboratory experiences. Designed primarily to prepare public school teachers and college instructors for more effective supervision. *D.*
- **690** Professional Laboratory Studies (3–9) Special studies based upon direct experience in supervision of student teachers in campus or public school laboratories. *D*.
- **691 Seminar in Education (3)**Prereq: perm. Explores research in teaching. Can accompany **562** or **563**; can be used preparatory to 692. *F, W, Sp; Y.*

- 692 Internship: Theory Into Practice (4)
  Prereq: EDCI 691. This course is a theory into practice internship based upon research findings in EDCI 691. All master's students must arrange for their internship at a site that will permit them to plan for the implementation of the findings developed in EDCI 691. F, W, Sp, Su; Y.
- 760 Internship in Education (3–9)
  Prereq: 9. qtr hrs graduate work in education.
  Teaching certificate and experience for interns in administration and supervision. Internship in school administration, supervision of instruction, or classroom teaching for minimum of one quarter, full-time. Following brief period of orientation to school and community, assumption of increasing responsibility under direct supervision of staff member of school system. Functioning as classroom teacher with regular supervision, as team member in team-teaching situation, or as assistant to administrator or supervisor. Weekly seminar conducted by college staff and public school associates. F. W. Sp., Su; Y.
- 761 Internship in Education (3–9)
  Prereq: 9 qtr hrs graduate work in education.
  Continuation of 760. See 760 for description.
  F. W. Sp., Su; Y.
- 790 Professional Laboratory Studies (3–9) Special studies based upon direct experience in supervision of student teachers in campus or public school laboratories. *D.*

# Russ College of Engineering and Technology

Programs leading to master's degrees are available in chemical, civil, computer science, electrical, industrial and systems, and mechanical engineering. In addition, the Ph.D. is offered in chemical engineering, electrical engineering, and a cross-disciplinary program in integrated engineering with specialties in civil engineering, industrial engineering, and mechanical engineering.

Stocker Center

Dennis Irwin Dean

Jerrell Mitchell Associate Dean

http://www.ent.ohiou.edu/

## **Facilities**

Graduate programs in engineering are enhanced by an endowment provided by a distinguished alumnus, the late Dr. C. Paul Stocker, and his wife, Beth. Income from this endowment, the net value of which is more than \$37 million, supports advanced research and graduate education through equipment purchases, scholarships, faculty enrichment, and two faculty chairs that bring some of the world's leading engineering talent to the campus for visiting professorships.

The college is housed in the Stocker Engineering and Technology Center. Interdisciplinary research is conducted through the college's centers and institutes: the Avionics Engineering Center, the Center for Advanced Materials Processing Research, the Center for Automatic Identification Education and Research, the Institute for Corrosion and Multiphase Technology, the Ohio Coal Research Center, the Center for Advanced Software Systems Integration, the Center for Intelligent, Distributed, Dependable Systems, and the Ohio Research Institute for Transportation and the Environment. Students and faculty cooperate across departments to perform research in these centers on multidisciplinary projects.

## Graduate Programs

Graduate programs can be formulated with a major in chemical, civil, computer science, electrical, industrial and manufacturing systems, or mechanical engineering. The M.S. is offered in all the engineering departments, and the Ph.D. can be earned in chemical engineering, electrical engineering, and integrated engineering with specialty areas in civil engineering, industrial engineering, and mechanical engineering.

The standard four-year course in engineering or its equivalent, as offered in institutions approved by the **Engineering Accreditation Commission** of the Accreditation Board for Engineering and Technology Inc., is a general prerequisite for graduate study. For computer science, the prerequisite for graduate study is the standard fouryear course offered by institutions approved by the Computer Science Accreditation Commission of the Computer Science Accreditation Board. Graduates in science and other fields of engineering whose programs included sufficient courses in mathematics, physics, chemistry, the humanities, and the social sciences may be accepted as graduate students, although undergraduate basic engineering courses may be required as preparatory. The Graduate Record Examination is required for applicants to all graduate programs except in extenuating circumstances. See program listings for specific application and admissions information.

Private endowments provide fellowships and assistantships ranging from \$12,000 to \$18,000 plus tuition (excluding the general and recreational facilities fees). Other teaching and research assistantships also are available. See program listings for details.

Programs leading to the M.S. and Ph.D. in chemical engineering are offered with particular research emphasis in the areas of air quality and atmospheric chemistry, biomedical and biochemical engineering, batteries and fuel cells, corrosion and flow in multiphase systems, electronic and advanced carbon materials, and energy and pollution control. Interdisciplinary collaborations are maintained with civil and mechanical engineering, biology, chemistry, physics, and medicine.

The M.S. in civil engineering may be focused in geotechnical engineering, environmental engineering, geoenvironmental engineering, structures, water resources, solid mechanics, or transportation. Research areas include treatment of water and wastewater, landfill components, pavement analysis and modeling, accelerated pavement load testing, noise abatement, structural reliability, reinforcement and prestressed concrete, soil structure interaction, centrifugal modeling, cone penetrometer technologies, constitutive relations for soils and rocks, nondestructive testing, computational methods in structural mechanics, computer-aided structural engineering, long-term water resources forecasting, and stochastic flood and drought analyses.

Programs leading to the M.S. in computer science and the M.S. and Ph.D. in electrical engineering are offered. Areas of interest include avionics, artificial intelligence, computers, applied and theoretical computer science, communications, controls, information theory, solid-state electronics, energy conversion, power electronics, power systems, electromagnetics, signal processing, manufacturing, VLSI design, computer vision, robotics, electronic circuits, and opto-electronics.

One of the most distinctive features of the School of Electrical Engineering and Computer Science is its Avionics Engineering Center. Initiated in 1963, the center provides educational opportunities for graduate students who have an interest in electronics and systems related to aircraft safety in takeoffs, landings, and navigation. The center participates in NASA's Tri-University Program with Princeton University and the Massachusetts Institute of Technology. Research projects at the center include instrument landing technologies (ILS, MLS, and GPS), airborne data collection, communications, and navigation system analysis. A special twelve-month, non-thesis option in Electronic Navigation Systems is available.

The Department of Industrial and Manufacturing Systems Engineering offers an M.S. in industrial engineering with specialized study concentrations in manufacturing systems, and manufacturing information systems. Each area has a set of core courses and recommended electives.

Research leading to an M.S. in mechanical engineering can be formulated with specialization in a number of areas. An M.S. with a manufacturing option is also offered. Areas of interest include computer-aided design and manufacturing, microcomputer control and data acquisition systems, automated manufacturing systems, finite-element analysis, materials processing, robotics, combustion, energy engineering and management, thermal stress analysis, thermofluid systems, air pollution, heat transfer, fluid mechanics, and mechanical design.

The Ph.D. in integrated engineering combines studies from at least two departments to focus on research areas in civil engineering, industrial engineering, and mechanical engineering. Students and faculty work across disciplinary lines on important problems in these areas.

**Computer Science Courses** (CS)—see Electrical Engineering and Computer Science.

## Chemical Engineering http://www.ent.ohiou.edu/che/

Programs leading to M.S. and Ph.D. degrees are offered with research emphasis in the areas of electronic and advanced carbon materials, corrosion and flow in multiphase systems, batteries and fuel cells, energy and pollution control, air quality and

atmospheric chemistry, and biomedical and biochemical engineering. Active collaborations exist with biology, chemistry, medicine, and civil and mechanical engineering.

The basic requirement for admission to the M.S. program is a B.S. in chemical engineering. The Test of English as a Foreign Language (TOEFL) is required of international students, and the Graduate Record Exam (GRE) is required of any student seeking financial aid. Special programs of study leading to the M.S. in chemical engineering are possible for students who have received a bachelor's degree in another scientific or engineering field. These special programs require completion of some portion of undergraduate chemical engineering courses and are generally available only to exceptionally wellqualified students. Inquiries are invited.

An M.S. in chemical engineering or an appropriate related area is required for candidacy in the Ph.D. program in most cases.

If you are working toward the M.S., you are expected to take a minimum of 30 credit hours of graded coursework. The following courses must be included in the chemical engineering area: 600, 601, 604, and 642. You also must complete a thesis requiring a minimum of 30 credit hours of work. All graduate students must maintain a minimum g.p.a. of 3.0 overall and in departmental courses.

A nonthesis option is available for students having proven research competence. This program requires a minimum of 45 credit hours of graded coursework. A special topic investigation extending over two or more quarters is required of all nonthesis participants. The special project requires a minimum of 15 credit hours of work.

You are encouraged to take coursework outside the department in other engineering disciplines and in related areas such as mathematics, chemistry, and physics. All graduate students are expected to participate in departmental graduate seminars when offered.

If you are working toward a Ph.D., you will take courses and appropriate work as required to fulfill a program of study determined by you and your advisory committee and acceptable to the departmental graduate committee. A

minimum of three 700-level courses are required. The Ph.D. qualifying examination, normally given twice a year, is a prerequisite for unconditional admission to the doctoral program. No student will be allowed to attempt the exam more than twice. After you have completed your coursework, you will be required to take a comprehensive examination consisting of the oral and written presentation of a research proposal in an area unrelated to your dissertation topic.

## Chemical Engineering Courses (CHE)

#### 520 Coal Conversion Technologies (3)

Coal characterization. Introduction to fixed bed fluid bed, and entrained bed operations. Equilibrium and kinetic predictions. Coal gasification and liquefaction processes.

530 Advanced Metallic Corrosion (3)

Review of basic principles and current theories of stress corrosion and embrittlement, corrosion fatigue, and transgranular and intergranular corrosion. Some laboratory work using recent techniques and apparatus. 4 lec.

## 531 Advanced Topics in Materials Science and Engineering (3)

Structure, processing, and applications of cermaics, polymers, and composites. Corrosion and degradation of materials. Electrical, thermal, optical, and magnetic properties of materials. Materials selection and design.

540 Process Modeling and Control (3)
Digital computer control in chemical engineering. State space concepts and their application in process control

550 Fundamentals of Material Analysis (3)
An overview of both classical and modern
techniques of materials analysis. Topics covered
range from classical optical spectroscopies (IR,
FTIR, Raman, UV/VIS) to such modern surface

techniques as AES, XPS, (ESCA), and RBS.

560 Atmospheric Pollution Control (4)
Sources of air pollution from major industries, internal combustion engines, and other sources. Techniques available for measuring particulates and gaseous pollutants in atmosphere and at their sources. Techniques available for control and future possibilities for control of air

563 Atmospheric Chemistry (3)

Homogeneous chemistry of the lower and middle atmosphere, emphasizing processes by which human activity influences the environment.

pollution. Bases for air pollution legislation.

577 Polymer Synthesis and Properties (3) Polymer classifications and nomenclature, reaction mechanisms, reaction kinetics, characterization techniques, reactor design and modeling, manufacturing processes, and polymer processing techniques.

581 Biochemical Engineering (3)

Study of processes in chemical engineering that depend on biological systems. An overview of biological basics, enzyme kinetics, major metabolic pathways, cell growth characteristics, essentials of recombinant DNA technology, bioreactor design and control, and an introduction of purification methods.

#### 582 Topics in Bioseparations (3)

Basic techniques such as cell disruption, centrifugation, precipitation, micro- and ultrafiltration, and various forms of chromatography for the separations of biomolecules, especially proteins, are introduced. Some emphasis on preparative and large-scale applications.

#### 583 Biomedical Engineering (3)

Biomedical engineering with an emphasis on cell and tissue engineering.

#### 600 Applied Chemical Engineering Calculations (5)

Linear and nonlinear algebra, ordinary and partial differential equations, optimization, and regression. Extensive treatment of numerical techniques for nonlinear problems. Computer modeling.

## 601 Advanced Chemical Engineering Thermodynamics (5)

Chemical engineering processes, pure materials, and mixtures. Criteria of equilibrium for homogeneous and heterogeneous systems. Correlation and estimation of properties; thermodynamic consistency tests.

604 Chemical Reaction Engineering (5)

Homogeneous and heterogeneous kinetics, isothermal and non-isothermal reactor design, non-ideal flow, axial dispersion, mass transfer and reaction, catalysis, multiphase systems.

#### 620 Manufacturing Materials (4)

Examines interrelationship among chemical and physical structure, properties, and processability of materials. Emphasis on the effect of this interrelationship on the final properties of manufactured products.

632 Modern Composite Materials (4)

Survey of the different types of composite matrix and reinforcement materials. Also covered are mechanical and thermal properties and properties of strength and fracture in composites.

#### 642 Transport Phenomena (5)

Theoretical basis of development of heat, mass, and momentum transfer. Boundary layer theory and comparison with other theoretical and semitheoretical approaches.

#### 645 Separation Processes (4)

The description, selection, and modeling of separation processes including crystallization, leaching, extraction, distillation, absorption, filtration, membrane and diffusional processes, and fixed bed sorption. Similarities of separation processes based on models of operation are emphasized.

#### 647 Computer-Aided Process Design and Simulation (4)

Use of ASPEN process flowsheet simulator to solve chemical process design problems. Nonideal vapor-liquid equilibrium. Multicomponent separations. Processes with recycle streams.

#### 690 Special Topics in Chemical Engineering (1–6)

Advanced study in a particular field of chemical engineering.

#### 691 Seminar (1)

Special presentations by internal and external speakers.

#### 695 Thesis (1–15)

#### 700 Advanced Chemical Engineering Mathematics (3)

Prereq: 600. Advanced study in applied mathe-matics in chemical engineering. Restricted to small groups with extensive student participation required.

#### 702 Perturbation Methods (3)

Prereq: 600. Application of perturbation methods to fluid mechanics and heat transfer. Basic solutions using potential flow, conformal mapping, and separation of variables. Asymptotic solutions using regular and singular perturbation methods.

#### 709 Advanced Chemical Reaction Engineering (3)

Prereq: 604. Advanced study in chemical engineering reactor kinetics and design. Extensive student participation required.

#### 730 Advanced Corrosion (3)

Prereq: S30. Advanced study in corrosion. Restricted to small groups with extensive student participation required.

#### 740 Process Dynamics (3)

Prereq: 540. Advanced study in chemical engineering process dynamics. Restricted to small groups with extensive student participation required.

#### 741 Advanced Process Control (3)

Prereq: 540. Advanced study in analog, hybrid, and digital computer control theory. Restricted to small groups with extensive student participation required.

#### 742 Advanced Chemical Engineering Momentum Transfer (3)

Prereq: 642. An analysis of the flow of fluids and the transport of momentum and mechanical energy. The differential equations of fluid flow, potential flow, flow in porous media, flow in fixed and fluidized beds, laminar boundary layer theory, and non-Newtonian fluids.

#### 744 Advanced Chemical Engineering Mass Transfer (3)

Prereq: 642. Topics covered include theory of diffusion, interphase mass transfer theory, turbulent transport, mass transfer in porous media, mass transfer with chemical reaction, simultaneous mass and heat transfer, multicomponent microscopic balances.

#### 776 Advanced Topics in Materials Processing (3)

Prereq: 620 or ME 563. Examines current issues in materials processing for different applications. Tailored to student interests and needs.

## 777 Turbulence and Advanced Topics and Fluid Flow (3)

Prereq: 642. Introduces theoretical and practical aspects of turbulence in chemical engineering. Topics include introduction to turbulence and its measurement, time and space correlations, two equation models, and other specialized topics based on student interest.

## 890 Special Topics in Chemical Engineering (1-3)

Ph.D.-level study in a particular field of chemical engineering.

#### 895 Dissertation (1-15)

#### **Civil Engineering**

http://www.ent.ohiou.edu/ce/

In civil engineering, programs for the Master of Science are offered in geotechnical, environmental, geoenvironmental, structures, solid mechanics, water resources, and transportation areas. A program leading to the Ph.D. in integrated engineering with a specialty in the geotechnical and environmental areas is also offered (see "Integrated Engineering").

A B.S. in civil engineering is a basic requirement for entrance to the M.S. program. An undergraduate g.p.a. of 3.0 or better is required for unconditional admittance.

Applications are invited from engineering and science graduates. Collateral work to remedy deficiencies of those without civil engineering degrees may be carried out in conjunction with the M.S. program. Collateral requirements will depend upon preparation in the applicant's major field of study.

Students may choose either the thesis or the nonthesis plan (at least 33 credits of graduate coursework plus 12 credits of thesis, or 45 credits of graduate coursework including three to five credits of a special investigation, respectively). Students who are supported by research funds are normally required to follow the thesis option.

Students must pass an oral examination before a recommendation for the degree is made.

The Department of Civil Engineering recommends that students begin in the fall quarter. There is no deadline for financial aid application; most awards, however, are made during spring quarter for fall entrance.

#### Civil Engineering Courses (CE)

500N Preparation for Graduate Studies (1–10)
Course designation to be used by graduate students needing preparation for civil engineering courses. Not for graduate credit for civil engineering majors.

515 Geodetic Surveying (3)
Prereq: 210. Equipment and methods used in aerial

Prereq: 210. Equipment and methods used in aerial photography and land measurement. 2 lec, 2 lab. W; Y.

520 Finite Element Methods in Engineering (3) Background theory, formulation, and application to one- and two-dimensional problems and techniques for analysis. Structures, consolidation, and wave propagation.  $F_i$  Y.

#### 523 Continuum Mechanics (4)

Matrix methods in mechanics and structures; law of dynamics; mechanical properties of solids and fluids; basic theories of continuum mechanics. 4 lec. W; D.

#### 524 Strength of Materials II (3)

Theories of fajlure, unsymmetrical bending, shear center, and other topics not covered thoroughly in undergraduate course. For nonmajors in civil engineering, 3 lec. F; Y.

525 Advanced Strength of Materials (4) Advanced treatment of theories of failure, stresses, and strains at a point, cross shear, unsymmetrical bending, curved beams, torsion, thick-walled cylinders, energy methods. 4 lec. F; D.

#### 526 Theory of Stability (3)

Buckling of columns, beam columns, plates, and rings. 3 lec. *F*; *D*.

527 Experimental Stress Analysis (3)

Prereq: \$24 or \$25. Elasticity theory; theory and use of mechanical, electrical, and other strain-measuring devices including photo-elastic equipment. 2 lec, 3 lab. \$p; Y.

**528** Theory of Elasticity and Applications (3) Equations of equilibrium and compatibility; stresses and strains in beams, curved members, thick cylinders, torsion, and structural members. *W; D.* 

529 Mathematical Theory of Elasticity (3) Prereq: 528. Fundamental equations and problems of elasticity theory; methods of stress functions and displacement potentials; finite element applications. *S; D.* 

#### 531 Experimental Methods in Structural Dynamics (3)

Modal analysis of structural models to identify their vibration characteristics. Frequency response functions using dual-channel signal analyzers. Mobility measurement techniques. Modal parameter extraction techniques. Computer-aided structural dynamics. W. D.

#### 532 Structural Dynamics (3)

Prereq: ME 591. Dynamic analysis of structures with multi-degree of freedom. Free and forced vibration analysis of elastic beams, frames, grids, and trusses. Earthquake and wind-induced vibration of high-rise buildings and bridges. Classical and computer methods. D.

533 Advanced Structural Theory I (3)
Analysis of indeterminate structures by both classical and modern methods. Energy theorems; method of finite differences; column analogy.

534 Advanced Structural Design (4) Modern design concepts and principles as applied to various construction materials. *Sp; D.* 

**536** Advanced Reinforced Concrete Design (3) Advanced design of reinforced concrete structural members. *D*.

#### 537 Timber Design (3)

Prereq: 330. Material properties and behavior of structural timber. Analysis and design of sawed timber and laminated timber members. Timber connection analysis and design. *D.* 

538 Prestressed Concrete Design (3)

Theory of prestressing, design and analysis of prestressed concrete beams, slabs, box girders, and bridge girders by elastic and ultimate strength methods. D.

539 Computer-Aided Structural Design (3) Analysis and design of complete structural systems by computer. Reinforced concrete, structural steel, and other applicable materials. Design reports and cost estimation of projects. F; Y.

#### 540 Deterministic Approaches in Water Resources (3)

Prereq: 343. Flood routing and overland-flow theory. Parametric hydrology, linear and nonlinear analysis of rainfall-runoff systems, unit and instantaneous unit hydrograph. Conceptual models for hydrologic watershed. W; D.

#### 541 Stochastic Hydrology (3)

Prereq: 343. Probability distributions applicable to hydrologic events; analysis of extremes, floods, and droughts; statistical associations between hydrologic variables. Analysis of hydrologic time series. Spectral and parametric formulation of stochastic models of precipitation, runoff, precipitation-runoff transfer. Sp; D.

#### 542 Applied Hydraulics (3)

For nonmajors in civil engineering. Flow and pressure distribution in multi-loop networks, dynamics of flow in pumps and turbines. Uniform and nonuniform flow in open channels, culvert hydraulics, hydraulic transients. 2 lec, 2 lab. *Sp; Y*.

543 Open Channel Hydraulics (3)

Prereq: 342. Principles of uniform and varied flow. Channel design for uniform flow, gradually varied flow profiles, channel transitions, hydraulic jumps, flow in prismatic and non-prismatic channels. 3 lec. F; Y.

545 Design of Hydraulic Structures (3) Prereq: 342. Design flood peaks, flood hydrograph, spillway, penstock, and river channel regulation. *Sp*; *Y*.

553 Solid/Hazardous Waste Management (3) An introductory course to identify, classify, and study methods of handling, treating, and managing solid/hazardous waste. *F; Y:* 

555 Advanced Water Treatment (4)
Prereq: 450, 452. Advanced study of theory.
Design of physical/chemical treatment units.
Practice in control methods. 3 lec. 3 lab. W: Y.

556 Advanced Waste Water Treatment (4) Prereq: 451, 452. Advanced study of theory. Design of biological treatment units. Practice in control methods. 3 lec, 3 lab. Sp; Y.

558 Water Quality Engineering (3)

Natural and man-made characteristics of water quality, changes in quality resulting from use, criteria for control of stream pollution, methods of improving water quality, legal and economic aspects. *Sp; D.* 

559 Surface Water Quality Modeling (3) Prereq: 450, 451. An advanced course on the fundamentals and principles that underlie the mathematical modeling techniques used to analyze the quality of surface waters. F or Sp.

#### 561 Environmental Analysis Transportation Systems (3)

Prereq: perm. The role of environmental assessment in transportation planning and project development is addressed. *F; D.* 

562 Traffic Engineering (3)

Prereq: perm. Vehicle and driver characteristics, uses of traffic control devices, intersection design and capacity, parking characteristics. *W<sub>i</sub>* Y.

563 Traffic Parameters (4)

Fundamental and derived traffic parameters, their uses, and methods of detection and measurement. *Sp; D.* 

564 Transportation Planning (4)

Introduction to traffic survey methods, data collection, evaluation. Topics include origin-destination, speed, parking, accident, and future development studies. W; D.

#### 565 Traffic Regulations and Controls (4)

Prereq. 563. Typical traffic ordinances and regulations and their use in controlling traffic through use of signs, markings, control devices, and traffic signals, including their use as single units or as a progressive series. *Sp. D.* 

#### 566 Transportation Design (3)

Prereg perm Design of highways, interchanges, intersections, and facilities for air, rail, and public transportation, *F; D.* 

#### 567 Traffic Studies I (3)

Traffic data collection and analysis; traffic flow theory; traffic controls with emphasis on traffic signal design; traffic capacity and analysis. *S; D.* 

#### 568 Traffic Studies II (1-4)

Prereg 565. Practical problems relating to vehicular characteristics and traffic movements. W. D.

#### 570 Soil Engineering (4)

For non-civil engineering majors. Soil composition, physical and chemical properties, and classifications. Water movement and seepage problems; stress distribution, settlement, and shear strength. Applications to earth structures, retaining walls, foundations, and slope stability. 4 lec. W.

#### 572 Soil Mechanics I (3)

Water movement through soil; construction and interpretation of flow nets. Stress distribution, compressibility and settlement of cohesive and noncohesive soil; consolidation theory. 2 lec, 2 lab. F; Y.

#### 573 Soil Mechanics II (3)

Prereq: 572. Shearing strength. Lateral soil pressures, stability of footings (bearing capacity), retaining walls, and slopes. 2 lec, 2 lab. W; D.

## 574 Advanced Soil Mechanics Laboratory (1) Prereq: 572, 573. Advanced techniques for measurement of soil engineering properties. 3 lab. So: D.

575 Advanced Foundation Engineering (3) Prereq: 471. Design of shallow and deep foundations for complex or unusual soil conditions; design of earth retaining structures including retaining walls, cofferdams, and sheet pile bulkheads; site improvement; performance evaluation and instrumentation. Sp; D.

#### 576 Soil Stabilization (4)

Engineering, geological, and pedological soil classification systems. Mineralogy of clay minerals and claywater systems; requirements for and factors affecting soil stabilized tips. Methods and mechanisms of soil stabilization; designing and testing stabilized soils. 3 lec, 3 lab. F; D.

#### 582 Paving Materials and Mixtures (3)

Types, constituents, chemical behavior, tests, specifications, and uses of bituminous materials. Portland cements and aggregates in pavements. Design and manufacture of paving mixtures and construction of pavements. 2 lec. 3 lab. W. D.

#### 583 Principles of Pavement Design (3)

Fundamentals of wheel loads and stresses in pavements. Properties in pavement components and design tests. Design methods and evaluation. 3 lec. *Sp; D.* 

#### 584 Constitutive Equations (3)

Stress; strain; linear and nonlinear theories of elastic media; stress path; introduction to plasticity. *Sp; A.* 

#### 585 Soil-Structure Interaction (3)

Beams and plates on elastic foundations, axially and laterally loaded piles; retaining walls; interface elements; construction sequences. W; D.

#### 586 Theory of Plates and Shells (3)

Bending of rectangular and circular plates, small and large deflection theory, membrane and bending shell theory. F; D.

#### 588 Soil Dynamics (3)

Vibration of elementary system, wave propagation, behavior of dynamically loaded soil, analysis and design of foundations for vertical vibration-rocking vibration. *F; D.* 

#### 590 Special Investigations (1-5)

Special investigations or problems not covered by formal courses and not requiring thesis. F, W, Sp, Su; Y

## 625 Finite Element Methods in Mechanics (3) Development of elements from variational principles. Application of finite element methods in static and dynamic continuum problems; computational techniques, interpretation of results. D.

#### 630 Active Structures (3)

Prereq: Perm. Advanced analysis, design, and control for active structures. Multi-criteria design optimization for modular active structures. Dual listed as ME 630.

#### 653 Environmental Geotechnology I (4) Prereq: 370 or 450 or 451. Presents the theoretical basis and in-situ/laboratory practices

of geo-environmental methods. 3 lec. 3 lab. *W;* Y. **691** Civil Engineering Seminar (1)
Presentation on research topics by students.
Typically take in final year of graduate study. *Sp.* 

## 694 Research (1–6)

695 Thesis (1-15)

#### 710 Energy and Variational Principles (3)

Prereq. 592. Provides a solid foundation in variational calculus and energy methods as applied to solid mechanics. Approximate techniques are formulated for geotechnical problems. *Sp; D.* 

#### 723 Continuum Mechanics II (4)

Prereq: 523. Tensor notation and application. Global behavior of solids, liquids, or gases under the influence of external disturbances. Basic laws of physical phenomena *Sp; D.* 

#### 730 Finite Element Methods II (3)

Formulation and application to two- and threedimensional problems and techniques for analysis in fluid mechanics, elastostatics, elastodynamics, and heat conduction. *F*; *D*.

#### 743 Stochastic Modeling (3)

Prereq: MATH 550A or ISE 504. Review of probability theory, stochastic analysis, geostatistics, analysis of random processes, and applications of stochastic modeling in engineering. *F; D.* 

#### 750 Design of Water Treatment Facilities (3) Prereq: 555 and 491B. Selection of processes/ operation and design of water treatment facilities. G. Mitchell; W; D.

#### 751 Sludge Treatment Processes (3)

Prereq: 555 and 556. Characterization of waste sludges from primary, chemical, and biological treatment; design of sludge treatment processes. *G. Mitchell; F; D.* 

#### 752 Industrial Waste Treatment (3)

Prereq: 555 and 556. Classification, characterization, and study of industrial wastes by industrial category. Selection and combination of unit processes/operations for treatment. *Sp; D.* 

#### 757 Subsurface Remediation (3)

Engineering design of systems to clean up contaminated soil and water above and below the water table. Physical, biological, and chemical methods. Emphasis on state-of-the-art technologies and most appropriate technology for a given site. *F; D.* 

## 790 Special Topics in Civil Engineering (1–5) Special topics or problems not covered by formal courses.

853 Environmental Geotechnology II (3) Prereq: 653. Addresses the technical and practical engineering issues of containment of wastes and restoration of contaminated and/or disturbed portions of the geoenvironment. *Sp; Y.* 

#### 885 Soil-Structure Interaction (4)

Prereq 520 and 572. Beams and plates on elastic foundation; axially and laterally loaded piles; retaining walls; interface elements; construction sequences.

## **Electrical Engineering** and Computer Science

http://www.ent.ohiou.edu/eecs/

Programs leading to the Master of Science degree in computer science and the Master of Science and Doctor of Philosophy degrees in electrical engineering are available. Major areas of study include avionics, computers, artificial intelligence, applied and theoretical computer science, communications, controls, information theory, solid-state electronics, energy conversion, power electronics, power systems, electromagnetics, signal processing, manufacturing, VLSI design, computer vision, robotics, electronic circuits, and opto-electronics.

Graduate Record Examination (GRE) scores are required for all applicants. However, if you have a B.S. in electrical engineering from an accredited (ABET) electrical engineering program, or a B.S. in computer science from an accredited (CSAB) computer science program, an exemption may be requested from this requirement. The Test of English as a Foreign Language (TOEFL) is required for non-native speakers of English. International students are strongly encouraged to sit for the TWE before applying for admission.

To be considered for entrance into the Doctor of Philosophy degree program, you must have a Master of Science degree in electrical engineering, computer science, or a related field of engineering or the physical sciences.

Typically, Ph.D. students complete two to three academic quarters of formal coursework in their chosen area of specialization and either mathematics or physics. This is followed by a three-part comprehensive exam that includes a written part, an oral part, and a defense of the dissertation research proposal. A

dissertation must be submitted and defended that is the equivalent of two years of full-time independent research.

The average duration of the program is four years. Ohio University regulations require that candidates for the Doctor of Philosophy degree in residence for a minimum of three academic quarters. Recipients of the Doctor of Philosophy degree are prepared for research careers in the private, public, and academic sectors.

To be considered for entrance into the Master of Science in electrical engineering degree program, you must have a B.S. degree in electrical engineering, computer engineering, or a closely related field. To be considered for entrance into the Master of Science computer science degree program, you must have a B.S. degree in computer science, computer engineering, or a closely related field. Deficiencies must be made up by self-study or by auditing (or taking without graduate credit) appropriate undergraduate courses.

The typical Master of Science degree orogram consists of one year of formal coursework followed by thesis research, oreparation of the thesis, and a combined oral examination and thesis defense. Details of the individual masters programs are available on the school's Web site.

The School of Electrical Engineering and Computer Science also offers a non-thesis Master of Science electrical engineering degree with a concentration in electronic navigation systems. Admission is highly competitive and those admitted to the program are not eligible for financial aid.

You are encouraged to enter the program in the fall quarter; however, students are accepted in other quarters.

All financial aid is awarded competitively based on standardized test scores and academic performance. In some cases, supplemental aid is available for highly qualified U.S. citizens.

Financial aid consists of OGS stipends, teaching assistantships, research assistantships, and Stocker research assistantships. Teaching and research assistants are required to work in the school approximately 20 hours a week. Stocker research assistantships are awarded to students who show exceptional promise for research. As a consequence, students who receive these awards are required to perform research duties over the duration of the award. Teaching assistantships are awarded to students judged to be the most qualified for positions supporting the teaching activities within the school. Other research assistants support various sponsored research projects within the school; as a consequence, an individual faculty member responsible for a particular research project makes his or her own selections for these positions.

For more information regarding financial aid, including current stipends and the number of awards made annually, visit the school's Web site.

#### **Computer Science Courses (CS)**

S00N Introduction to Discrete Structures (4)
Review of set algebra including mappings and relations. Algebraic structures including semi-groups and groups. Elements of theory of directed and undirected graphs. Boolean algebra and propositional logic. Applications of these structures to various areas of computer science.

504 Design and Analysis of Algorithms (4)
Prereq: MSCS major or 561N. (fall, winter) Correctness of algorithms. Analysis of efficiency of algorithms—recurrence relations, worst-case and best-case behavior, average-case behavior.
Design of algorithms: divide-and-conquer and balancing, greedy method, graph searching, dynamic programming, backtracking, branch-and-bound and preprocessing techniques.

506 Computation Theory (4)
Prereq: MSCS major or 500N. (fall, spring) Algorithms, recursive functions, Turing machines, decidability.

#### 509N C++ for Non-majors (4)

This course is designed to teach the C++ language to technically able students with previous programming experience who are not majoring in Computer Science. This course deals with various topics including the syntax and semantics of C++, modular design of programs, functions, iterative structures, selection structures, classes, arrays, abstract data types (ADTs), and the separate compilation of modules. The course also includes a brief introduction to the string class and template classes.

#### 510 Formal Languages and Syntactic Analysis (4)

Prereq: MSCS major or 500N and 561N. (winter) Definition of formal grammars: arithmetic expressions and precedence grammars, context-free and finite-state grammars. Algorithms for syntactic analysis: recognizers, backtracking, operator precedence techniques. Semantics of grammatical constructs: reductive grammars, Floyd productions, simple syntactical compilation. Relationship between formal languages and automata.

#### S20N Organization of Programming Languages (4)

Formal definition of programming languages including specification of syntax and semantics. The imperative, object-oriented, functional and logic programming language paradigms are discussed. Names, bindings, storage allocation,

type checking and scopes in the major programming languages. Programming languages design issues including data types, expressions, assignment statements, control structures and subprograms. Runtime representation of program and data structures.

## Topics in Computer Science for Elementary and Secondary Teachers (1–5)

Selected topics in computer science of interest to teachers in grades K-12. (May be repeated for credit.)

#### S42 Operating Systems and Computer Architecture I (4)

Prereq: MSCS major or 561N. (winter) In-depth coverage of computer operating systems and related computer architecture issues. Coverage of physical devices, interrupts, and communication between the computer and external hardware. Interfaces between user programs and the operating system, system calls, software interrupts, and protection issues. Context switching, process address spaces, and process scheduling. Process synchronization, interprocess communications, critical sections, and deadlock detection and recovery. Memory mapping, swapping, paging, and virtual memory.

#### S44 Computer Networking (4)

Prereq: 542. In-depth coverage of computer-to-computer and program-to-program communication over modern computer networks focusing on the TCP/IP protocol family. Review of data communication issues, physical address binding, bridging, Ethernet, and Token Ring. Internetwork protocols, routing, domains, networks, and subnetworks. Transport protocols, reliability, flow control, retransmission, and acknowledgment. Distributed systems, server and client issues including verification, and authentication. Highlevel protocols and applications including electronic mail, network news, remote terminal interaction, and the World Wide Web.

#### SS6 Software Engineering (4)

Prereq: MSCS major or 561N. (fall, spring) All phases of the software engineering lifecycle, including system engineering, requirements analysis, design, implementation, and testing. Communication skills that are relevant to working in software engineering teams and interacting with customers. Teams of students perform all software engineering phases in response to the needs of a customer.

#### S58 Operating Systems and Computer Architecture II (4)

Prereq: 542. Continuation of 542. (spring) Detailed discussion of virtual memory and backing stores. File system interfaces, implementation, and protection mechanisms. Process scheduling issues, policies, and mechanisms. Interprocess communication between programs on different computers. Distributed systems issues, examples, and implementation.

#### S61N Data Structures (4)

Prereq: 500N. Basic concepts of data. Linear lists, strings, arrays, and orthogonal lists. Representation of trees and graphs. Storage systems and structures, and storage allocation and collection. Multilinked structures. Symbol tables and searching techniques. Formal specification of data structures, data structures in programming languages, generalized data management systems.

#### 562 Database Systems I (4)

Prereq: MSCS major or S61N. (winter, spring) This course introduces fundamental concepts in data modeling and relational database systems. It begins with the entity-relationship (ER) modeling technique as a tool for conceptual database design. The relational data model and relational algebra are introduced next, followed by the SQL query language for relational databases. Functional dependencies, normalization and relational database design algorithms are then discussed.

#### 580 Artificial Intelligence (4)

Prereq MSCS major of 500N (fall) Definition of heuristic vs. algorithmic methods, rationale of heuristic approach, description of cognitive processes, and approaches to mathematical invention. Objectives of work in artificial intelligence, simulation of cognitive behavior, and self-organizing systems. Heuristic programming techniques including use of list processing languages. Survey of examples from representative application areas. Mind-brain problem and nature of intelligence. Class and individual projects to illustrate basic concepts.

#### 590 Special Problems in Computer Science (1-15)

Special project in one of various subfields of computer science or application area studied, investigated, and/or solved by individual student or small group working in close relationship with instructor. Suitable problems might include construction of compiler for special purpose artificial language, perfection of computer code to solve some significant problem, or study of coherent subfield or computer science. May be repeated for credit.

#### 599 Elementary Topics in Computer Science (1–15)

Special topics omitted in student's undergraduate preparation for graduate study. May be repeated for credit.

#### 604 Advanced Algorithms (4)

Prereq: 504 or 506. Advanced topics in the design and analysis of algorithms are explored. These topics include the theory of NP-completeness, NP-hard optimization problems, polynomial-time approximation algorithms, approximation schemes, approximability and non-approximability results, randomized algorithms, and parallel algorithms. *Juedes*.

#### 605 Parallel Computation Theory (4)

Prereq: 504 or 506. Topics in the theory of parallel computation are explored. These topics include the PRAM model, the Boolean circuit model, uniform circuit families, parallel complexity classes, reducibility, P-completeness, and the approximation of P-complete problems. Juedes.

#### 606 Computational Complexity (4)

Prereq: 506. The complexity of computational problems is explored with respect to a variety of complexity measures. Topics of study include deterministic time complexity, nondeterministic time complexity, the polynomial-time hierarchy, average-case time complexity, space-bounded complexity, circuit complexity, reductions, relativizations, and parallel models of computation. Juedes.

#### 612 Real Time Systems (4)

Prereq: 556, 558. Discusses real-time systems and their design principles. Studies the particular characteristics of these systems and some real-time programming technologies. *Welch*.

#### 620 Compiler Construction (4)

Prereq: 510. Fundamental and advanced topics in compiler design are explored. These topics include lexical analysis and scanner generation, syntax analysis and parser generation, semantics analysis and attribute grammars, code generation, and code optimization. *Cai.* 

#### 621 Parallel Compilers (4)

Prereq: 620. Fundamental and advanced topics in parallelizing compilation techniques for parallel systems are explored. These topics include data dependence, scalar analysis, loop restructuring, optimization for locality, and concurrency analysis. Cai.

#### 644 Advanced Topics in Computer Networking (4)

Prereq: 544. High-speed networking, experimental protocols, congestion control, reliability, security, distributed systems. *Ostermann*.

#### 645 Cryptography and Computer Security (4)

This course will introduce students to the basics of cryptography and how it is used to provide security for various tasks performed by computers. Foundation topics that will be covered include: symmetric-key cryptosystems, asymmetric-key cryptosystems, digital signature algorithms, one-way hash functions, and zero-knowledge proofs. Security systems that will be covered include: kerberos, kryptoknight, and PGP. Tjaden.

#### 657A Software Specification (4)

Prereq: 556. Basic object oriented modeling is studied. Functional modeling is contrasted with object oriented modeling, and the benefits of object oriented modeling, and the benefits of object oriented modeling are considered. Basic structural modeling and basic behavioral modeling in the Unified Modeling Language (UML) are covered. Basic structural modeling topics include principles of modeling, classes, relationships, common UML mechanisms, UML diagrams, and class diagrams. Concepts taught in basic behavioral modeling involve interactions, class-responsibility-collaborator modeling, use cases, use case diagrams, interaction diagrams, and activity diagrams. Welch.

#### 657B Software Design (4)

Prereq. 657A. Advanced object oriented modeling is studied. Specifically, students learn how to employ the Unified Modeling Language (UML) for advanced structural modeling, advanced behavioral modeling, and architectural modeling of software systems. Advanced structural modeling involves software components and their relationships. Concepts taught in advanced behavioral modeling pertain to hierarchical representations of external environment dependencies and interactions as well as concurrency. The course also covers architectural modeling, including design patterns, collaborations, and deployment diagrams. Welch.

#### 657C Software Implementation (4)

Prereq: 657B. This course provides students with the skill necessary for successful management of software engineering projects. Students learn technical management techniques as well as interpersonal communication concepts. The principles taught in the course are applied to a software engineering program. Welch.

## 6B0 Advanced Topics in Artificial Intelligence (4)

Prereq: 580. Advanced topics in artificial intelligence (AI) are studied. The concepts of heuristic search and knowledge representation are studied in detail to provide a firm grounding in AI. Then an advanced topic will be studied, such as machine learning, natural language understanding, computer vision, and/or reasoning under uncertainty. The emphasis is to illustrate that representation and search are fundamental issues in all aspects of artificial intelligence. Chelberg.

## 6B1 Research in Computer Science (1-6) F, W, Sp, Su; Y.

#### 690 Selected Topics (1-4)

Selected topics of current interest in computer science. F, W, Sp; Y.

#### 695 Thesis (1-9)

Thesis research in computer science. F, W, Sp, Su; Y.

#### 69B Graduate Research Seminar (1)

Research seminar for graduate students in computer science. F, W, Sp, Su; Y.

#### **Electrical Engineering Courses (EE)**

#### 505 Physical Electronics (3)

Simplified one-dimensional band theory of solids. Valence and conduction band occupancy

from Fermi-Dirac statistics. Hole conduction and doping. Derivation of PN junction volt-amptemperature characteristic. DC and AC characteristics of junction transistors derived from fundamentals. Curtis; F; D.

#### 506 Advanced Analog Circuits (3)

Advanced analog circuitry. Operational amplifiers, characteristics, limitations. Linear and nonlinear applications. Feedback, stability criteria compensation, time and frequency response. Waveform generation and shaping, timing, comparison, anthmetic operations. Curtis: 5: Y.

#### 507 Advanced Digital Circuits (3)

Advanced digital circuitry. Basic logic operations, digital device families and characteristics. Arithmetic, counting, memory, other MSI and LSI functions. Numeric display devices. Analog/digital conversion. *Curtis; W; Y.* 

#### 510 Semiconductor Principles I (3)

Prereq: 505. Continuation of 505. (spring, on demand) Application of semiconductor theory to solid state devices; diodes, transistors, FETs, and Gunn effect devices. Charge control analysis. Ebers-Moll equations. Electro-optical effects. *Curtis; Sp; D.* 

#### 511 Analog Filters I (3)

Principles of filter synthesis, positive-real functions, synthesis of one-port networks, synthesis of two-port networks, approximation, frequency transformations, and filter design. F; Y.

#### 512 Analog Filters II (3)

Prereq: 511. Principles of active filter synthesis, active filter elements, realization of active two-port networks, multiple feedback filters, explicit formulas and practical filter design. Sensitivity and non-ideal filter elements. Switched capacitor filters. W: Y.

#### 513 Digital Filter Design (3)

Prereq: \$11 and \$12. Principles of digital filter design, z-transform, discrete Fourier transform, representations of digital filters, digital filter hardware implementations, and computer-aided design of digital filters. Sp; A.

#### 514 VHDL Design (4)

Prereq: perm. Application of very high speed hardware description languages (VHDL) for digital design, simulation, verification, and specification. Structural design concepts, design tools. VHDL language, data types, objects, operators, control statements, concurrent statements, functions, and procedures. VHDL modeling techniques, algorithmic, RTL, and gate level designs. Design synthesis. 3 lec, 2 lab. Starzyk; F; A.

#### 515 VLSI Design I (3)

Prereq: 505. Introduction to very large scale integration (VLSI) technology and design of CMO5 integrated circuits. VLSI fabrication process; design rules; logic design; performance estimation; chip engineering; computer aids to VLSI design. 3 lec, 2 lab. Starzyk; W; Y.

#### 516 VLSI Design II (4)

Prereq: 515. Sequential system design, clock generation and clocking disciplines, design validation, sequential testing, standard cell layout, adders, ALUs, multipliers, high density memory, PLA design, floorplanning, I/O architecture, register transfer design, datapath control, high-level synthesis. 3 lec, 2 lab. Starzyk; Sp; A.

#### 525 Control Theory I (3)

Formulation of models for lumped parameter systems, fundamental principles of closed-loop control, signal flow graphs, stability, Routh-Hurwitz criterion, root locus construction, specifications, and design via root locus. *Lawrence, Irwin; W.* 

#### 526 Control Theory II (3)

Simulation, Bode plots, frequency response performance specifications and relationship to time doman specifications, Nyquist criterion,

relative stability measures, closed-loop frequency response, analytical desgin of lead, lag, lag-lead, and PID compensators. Lawrence; Sp.

527 Control Theory III (3)

Sampling and data reconstruction, discrete-time systems, z-transforms, sampled data systems, frequency response, Nyquist criterion, root locus, bilinear transformation, analytical design of lead, lag, lag-lead, and PID compensators.

528 State Variable Methods in Control (3) Basic state variable concepts, writing state equations, time-domain solution of the state equation and the matrix exponential, relations to transfer functions, controllability and observability, stability, state variable methods of design including state feedback and state estimation. F; A.

#### i29 Mechanics and Control of Robotic Manipulators (4)

(spring) Classification and applications for mechanical manipulator systems. Manipulator motion description, forward kinematics transformations, solution of inverse kinematics equations. Velocity kinematics and manipulator dynamics equations. Trajectory generation and control schemes including sensory feedback. Laboratory exercises to augment lecture material. Co-listed with ME 529. Williams; Sp; Y.

- 531 Optoelectronics and Photonics I (3) (winter) Introduction to the important modern optical devices, lasers, and their applications. Emphasizes the basic physical theory needed to understand lasers, their construction, and their applications. A detailed discussion of various types of lasers and their characterization. Lozykowski; W; Y.
- 532 Optoelectronics and Photonics II (3) Prereq: 531. (spring) Continuation of 531. Additional theoretical material discussed begins with Maxwell's equations. Examines electromagnetic issues that play a major role in laser oscillations—amplification and feedback. Characterization of lasers and continuing discussion of laser types and their applications. Lozykowski; Sp; Y.
- 533 Optoelectronic Materials and Devices (3) Introduction to modern optical materials and devices using semiconductors technology, the optical integration of these devices, and their application in diverse fields. Both fundamentals of devices and materials are emphasized. Lozykowski; D.
- 540 Microwave Theory and Devices (3) (offered every other year) Wave propagation, transmission lines, 5mith chart, impedance matching, waveguides, and survey of devices (microwave generators, semiconductor devices, etc.). Radcliff.

#### 541 Antennas (3)

(winter) Fundamental concepts and definitions, radiation integrals and potentials functions, linear wire antennas, loops, arrays, matching techniques, antenna measurements, laboratory demonstrations. Radcliff.

543 Electromagnetics I (3)

(offered every other year) Mathematical review of vector operations in Cartesian and curvilinear coodinates. Solution of wave equation in Cartesian coordinates and application to wave reflection from interfaces between general media. Decomposition of wave solutions into TE, TM, and TEM waves, with application to waveguides and transmission lines; solution of wave equation in cylindrical coordinates, with application to circular waveguide, radiation from line sources, and scattering from cylindrical objects. W.

554 Power Electronics (3)

(winter) Introduces the graduate student to power electronics. Covers most uses of semiconductor devices for the conversion and control of electric power: AC to DC, AC to AC, DC to DC, and DC to AC conversions; DC and AC motor drives. Semiconductor device characteristics (particularly those parameters not stressed in most undergraduate electronics courses) and device protection. *Sp;* Y.

#### 555 Introduction to Electric Power System Engineering and Analysis (3)

Includes power system representation, computer methods, symmetrical components, protection methods, and stability. *Manhire*; F; Y.

#### SS6 Introduction to Electric Power System Engineering and Analysis II (3)

Prereq: 555. Continuation of 555. See 555 for description. *Manhire*; *W*; *Y*.

#### SS7 Introduction to Electric Power System Engineering and Analysis III (3)

Prereq: \$\$6. Continuation of \$55, \$56. See \$55 for description. *Manhire; Sp; Y.* 

561 Digital Systems I (3)

Postulates and fundamental theorems of Boolean algebra; algebraic and map methods for design of combinational logic and simple sequential circuits; logic minimization methods; introduction to system design using shift registers, counters, etc. Celenk; F; Y.

S62 Digital Systems II (3)

Prereq: 561. Basic concepts from theory of finitestate machines; analysis and synthesis of sequential circuits; study of state assignment; synchronous and asynchronous machines; system design using integrated circuits. Celenk; W; Y.

#### 563 Digital Systems III (3)

Prereq: 562. Synthesis of sequential circuits using ROMs and RAMs for control logic. Introduction to computer organization and design including selection of instruction set, register and bus organization, and implementation of control logic with micro-programmed control. Celenk; Sp.

## 564 Engineering Applications of ExpertSystems (3)

Knowledge representation. The process of knowledge engineering. Areas in engineering for expert systems applications. Implementing engineering projects that involve a decision-making process, by using VP-Expert, a PC-based expert systems tool. Vassiliadis; W; Y.

567 Microcomputers I (3)

Organization of several mini- and microcomputer systems. Theory and application of assemblers, loaders, etc. Numerous control and data acquisition problems programmed in assembly language on existing computers. Applications in wide range of areas studied. *F;* Y.

S68 Microcomputers II (3)

Prereq: 567W. Continuation of 567W. Klock; W; Y.

570 Communication Engineering (3) Unified approach to communications stressing principles common to all transmission systems. Review of Fourier series. Fourier integral and complex frequency techniques with emphasis on communication networks, time response and convolution, measurement of information, amplitude modulation (double and single sideband techniques), frequency modulation, sampling theory, pulse modulation systems, with emphasis on modern digital signaling techniques including PCM, DPCM, PAM, PDM, PPM, and DELTA modulation; fundamentals of random signal theory and its application to communication systems; noise figure, noise suppression techniques, and other related topics. Essman; F; Y.

#### 571 Stochastic Processes in Electrical Engineering (3)

(winter) Brief review of probability concepts, including densities, moments, etc. Random process fundamentals (ensembles and

realizations), stationarity concepts, 2nd-order statistics, Gaussian processes, random signal through linear systems, Markov chains.

- 572 Introduction to Digital Communications (3) (spring) Summary review of deterministic and stochastic signal and system characterizations, sampling quantization. Baseband pulse signaling and the matched filter. Introduction to signal spaces and distance concepts. Bandpass modulations and their performance in AWGN. Link budget analysis, synchronization overview.
- 585 Electronic Navigation Systems I (3) (winter) Principles and theory of operation of electronic navigation systems with emphasis on avionics; aircraft instrumentation, VOR DME, Inertial, Omega, LORAN, ILS, MLS, TRANSIT, GPS, air traffic control, and radar. van Graas; F; Y.
- **586** Electronic Navigation Systems II (3) Prereq: 585. (spring)Continuation of 585 focused on current and future avionics systems and aircraft electronics. Design and signal processing in navigation receivers. *van Graas; W; Y.*
- 587 Electronic Navigation Systems III (3)
  Prereq: 586. Continuation of 585 and 586 with
  emphasis on mathematical modeling of navigation and landing systems, fault tolerant avionics
  system design and architecture, night testing,
  and current developments. van Graas: So: D.

#### 590 Special Topics (1-6)

Selected topics of current interest in electrical engineering. Y.

601 Electromagnetic Wave Propagation in Electronic Navigation Systems (3)

Electromagnetic principles and propagation of radio waves over the earth surface and through the atmosphere. Topics include groundwaves, skywaves, tropospheric and ionospheric effects, Total Electron Content, group and phase velocity, incident fields, reflection coefficients, Brewster angle, diffraction, scattering, Fresnel Zone. Bartone.

602 Radar Systems (3)

Theory of operation of radar systems. Topics include the radar equation, radar cross-sections, radar altimeter, Air Traffic Control radar, Doppler radar, weather radar, synthetic aperature radar, Mode A/C/S. Bartone.

603 Inertial Navigation Systems I (3) Principles of operation of inertial navigation systems. Topics include rigid body kinematics, observation equations, attitude update, earth rate and transport rate, position and velocity updates, initialization, orientation, sensor technology. Braasch.

604 Inertial Navigation Systems II (3)

Continuation of Inertial Navigation Systems I. Emphasis on error sources and propagation/simulation of errors, including gravity, Schuler period, vertical damping, scale factors, biases, drift, temperature, noise, alignment, initialization, cross-coupling, g-sensitive errors, magnetic field-sensitive erros. Braasch.

- 605 Satellite-Based Navigation Systems (3) Theoretical development of spread spectrum ranging and positioning with space-based transmitters; ephemerides, broadcast signal structure; ranging observables; absolute and relative positioning methodologies; error source characterization and mitigation. Braasch.
- 606 Integrated Navigation Systems (3)
  Theoretical development of positioning and navigation with multiple sensors; optimal navigation solutions; the Kalman Filter as an integration tool; fault detection and isolation. Brassch.

#### 607 Navigation Receiver Design (3)

Theoretical development of receiver design with emphasis on spread spectrum ranging; low-noise amplifiers; radio frequency processing, down conversion and intervmediate frequency processing; In-phase and quadrature components; analog-to-digital conversion; signal acquisition and tracking. Braasch.

## 608 Aviation Standards, Software Design and Certification (3)

Overview of aviation standards including Federal Aviation Regulations, Technical Standard Orders, Advisory Circulars, RTCA documents and ARINC standards. Software design using military and civilian standards, IEEE software standards, software life cycle processes, program design language, documentation, testing, independednt test verification, case studies. van Graas.

#### 610 Aerospace Controls (3)

Theory of controls for aerospace applications. Topics include: state-space models, coordinate systems and transformations, Euler angles, quaternions, continuous and discrete feedback systems, Bode plots, aircraft control, aerodynamics, flight path reconstruction, update rate, latency, stability. Van Graas.

#### 611 Circuit Analysis and Design (3)

Review of network analysis and matrix methods. Passivity and positive real functions. Introductory graph concepts and topological network analysis. Indefinite admittance matrix and active two-ports. Amplifier design and stability. High frequency circuits. Time domain versus frequency domain analysis. Nonlinear circuits. Introduction to numerical methods. *F;* Y.

#### 612 Multipath in Navigation Satellite Systems (3)

Characterization and mitigation of multipath errors in satellite-based navigation systems. The multipath problem and its impact will be covered along with multipath modeling, measurement and characterization, and means to reduce effect. *Braasch*.

#### 615 VLSI Systems Design (4)

Prereq: S15. Communication and concurrency in computers; processor arrays; hierarchically organized machines. Structured design; layout algorithms; MOS cell library. Design tools; rule checking; timing analysis; switch level simulation; placement; and routing. Starzyk; Sp; A.

## 616 Computer-Aided Analysis of Electronic Circuits (3)

Computer-aided simulation, numerical solution of nonlinear networks, tableau method, multistep numerical integration, sensitivity calculations, sparse matrix techniques, symbolic analysis, large change sensitivity, design by minimization. Starzyk; F; Y.

#### 617 Fault Testable Design (4)

Prereq: 51S or perm. Basic concepts of reliability. Physical faults and testing. Test generation for combinational and sequential logic circuits, random testing, and signature analysis. Fault tolerance and circuit redundancy, self testing and fail-safe design, fault tolerant VLSI design, practical fault tolerant systems. Self testing, design for testability, built-in test, boundary scan testing, IEEE standards. 3 lec, 2 lab. Starzyk; W; A.

#### 623 Nonlinear Analytical Techniques (3)

Dynamic systems-use and limitations of phase plane portraits in characterization of nonlinear components and nonlinear activation. Nonlinear phenomena and classification of singularities. Role of forcing function. Solutions found through methods of residues and variation of parameters. Selection process as means for decision making in problem solution; influence of selected criteria.

Applications to networks, controlled systems, and optimal control systems. Problems and techniques of Poincaré, Lienard, and others. Systems with analytical solutions. Linearization techniques and error-tolerance determination. *D.* 

#### 632 Integrated Optics I (3)

Theory of dielectric waveguides. The waveguide fabrication techniques, materials for waveguides. Waveguide measurements. Materials for active devices: LED's, lasers, and detectors. Fundamentals of optical coupling, input and output couplers, coupling between waveguides. Lozykowski; Sp. Y.

#### 633 Integrated Optics II (3)

Prereq: 632. Modulators: electro-optic modulators, acousto-optic modulators, light sources: light emitting diodes, semiconductor lasers, (homo and heterostructures). Modulation of semiconductor lasers. Detectors for integrated optics application. Application of integrated optics and recent progress in integrated optics. *Lozykowski*; F; Y.

#### 641 Advanced Antenna Theory (3)

Theory of dielectric waveguides. The waveguides' circular apertures, parabolic and corner reflectors, lenses, continuous sources, and antenna synthesis. Overview of integral equation and optical techniques in antenna theory. *Radcliff; Sp; D.* 

#### 645 Electromagnetics II (3)

Prereq: S43. Review of dyad, antisymmetric matrix UxI, solutions of homogeneous and inhomogeneous equations in coordinate-free form. Wave propagation in anisotropic media. Wave propagation in uniaxial media. Radiation in isotropic medium. Chen; W: A.

#### 646 Electromagnetics III (3)

Prereq: 645. Wave propagation in plasmas and ferrites. Wave propagation in moving media. Radiation in uniaxial medium. Radiation in moving medium. Chen; Sp; D.

647 Numerical Methods in Electromagnetics (3) Prereq: 441 or S41. A review of basic integral equation of electromagnetics and an introduction to the method of moments including many practical solution examples. Software provided for many currently used general-purpose codes such as the Numerical Electromagnetic Code (NEC) and MININEC. Radcliff; Sp; Y.

## 648 High-Frequency Techniques in Antenna Theory (3)

Prereq: 441 or \$41. Geometrical optics, radar cross sections, physical optics, and the Geometrical Theory of Diffraction (GTD). Diffraction theory for both the wedge and convex curved surfaces is presented, along with computer examples. Hybrid GTD-moment method techniques. Radcliff; D.

#### 6S2 Design and Control of Manufacturing Systems (3)

Prereq: ME 560 or ISE 640 or perm. Benefits of CIM, integrated databases, IDEF-0, IDEF-1x, flexible manufacturing systems. System design: requirements, design and implementation. Control and software design for manufacturing systems. Judd; W; A.

#### 653 Advanced Topics in the Control of Manufacturing Systems (3)

Prereq: EE S71 or perm. Markov chains, Markov process, and generalized semi-Markov processes. Application of Markov models to manufacturing systems. Infinitestimal, finite, and extended perturbation analysis. Petri nets, reachability graphs, incident matrix, boundedness, safe and live nets. Using Petri nets to control manufacturing systems. Aggregate production models. Hedging point strategies. *Judd; Sp; Y.* 

## 661 Hardware Architecture of Computers I (3) Prereq: CS 542. Processor level design methodologies. Computer arithmetic and number systems. Fixed- and floating-point ALU design; bit-sliced

ALU organization; high performance multifunction array processors. Control organization and instruction sequencing; control implementation techniques and control memory optimization. Memory organization and virtual memories; address mapping; memory allocation and replacement policies; segments, pages and files; caches and associative memories. Celenk; F; Y.

662 Hardware Architecture of Computers II (3) Prereq: 661. Continuation of 661. System organization; bus control and interfacing, bus arbitration, and timing. I/O subsystems; programmed I/O; DMA and interrupts; I/O coprocessors. Introduction to operating systems and systems management. Celenk; W; Y.

Architecture of Parallel Computers (3)
Parallelism in uniprocessor systems. Parallel
computer structures; pipeline computers, array
processors, and multiprocessor systems.
Multiplicity of instruction/data streams; SISD,
SIMD, MISD, and MIMD computer organizations;
parallelism versus pipelining. Virtual and cache
memories; memory allocation; I/O subsystems.
Principles of pipelining and vector processing.
Pipeline computers and vectorization methods.
Structures and algorithms for array processors.
SIMD computers and performance enhancement.
Multiprocessor computer architecture. Data flow
computers and systolic arrays. Celenk; Sp; Y.

#### 664 Digital Image Processing (3)

Image fundamentals and human visual system; image radiometry, photometry, and colorimetry. Image sensing and formation; imaging geometry, perspective transformations, camera modeling and calibration, stereoscopic imaging. Neighbors, connectivity, and distance measures. Image sampling, quantization, and representation. Linear 2-D transformation techniques; DFT, FFT, Haar, Hotelling, Walsh, Hadamard, and Hough transformations. Image filtering and noise cleaning. Image enhancement and restoration. Image detection and registration. Template matching. Image coding and transmission. Image understanding systems. Celenk; F; Y.

#### 665 Computer Vision (3)

Computer vision system models. Image analysis and early processing; approaches to image segmentation (edge detection, region growing, histogramming, clustering, split and merge); thinning and contour following. Image feature extraction and texture analysis. Stereo vision and 3-D scene analysis. Geometrical and topological properties of binary images. Higher level processing; shape analysis and description, object representation, and recognition. Photometric stereo and shape from shading. Motion field and optical flow. Motion path planning and visual guidance. Visual inspection and quality control. Celenk; W; Y.

#### 666 Pattern Recognition (3)

Decision-theoretic pattern recognition and classification. Supervised learning and training algorithms, perceptions, reward and punishment, potential functions, linear discriminants. Bayesian learning, parametric and nonparametric classification, Bayes and Fisher classifiers. Unsupervised learning and clustering; maximum-distance, Kemeans, and Isodata algorithms, graph-theoretic approach. Feature selection through clustering transformation, entropy minimization, Karhunen-Loeve expansion. Principles of syntactic pattern recognition; formal language theory, recognition grammars, learning, and geometrical inference. Celenk: So: Y.

#### 667 Introduction to Neural Networks (3) Prereg: 571. Fundamentals of artificial neural networks. Training algorithms. Software and hardware ANN products. Current ANN research trends. Vassiliadis; F; Y.

568 Knowledge-Based Systems in Engineering Design (3)

Prereq: 464/564. Advanced topics in knowledge epresentation. Knowledge-based expert systems for design, planning, and classification. Expert systems integration with databases, neural etworks, and fuzzy logic systems. Languages for symbolic computation. Vassiliadis; Sp; Y.

571 Digital Signal Processing II (3)
Prereq: 312 or equiv. Fundamentals of discrete-

Prereq: 312 or equiv. Fundamentals of discreteime systems. The Fourier transform. Sampling analog signals. The discrete Fourier series and the fast Fourier transform. Harmonic analysis and windowing. The z-transform. F; Y.

573 Advanced Topics in Signal Processing (3) Prereq: 671 or equiv. Digital filter design methodology. Numerical problems in signal processing. Discrete random signals. Introduction to sonar signal processing. Open problems and current research trends. W; Y.

574 Information Theory (3)

Prereq: 571. Definition of measure of information, entropy, efficient methods for source coding, mutual information, types of communication channels and channel capacity, error correction coding bounds, continuous-time-signal information theory.

575 Introduction to Plasma Dynamics (3)
Prereg: 543. Particle orbit theory, magneto-ionic heory, waves in cold plasmas, waves in warm plasmas. H. Chen; D.

576 Adaptive Signal Processing (3)

Prereq: 671 or equiv. Linear prediction, Kalman ilters, steepest descent and stochastic gradient algorithms, method of least squares, singular value decomposition, superresolution algorithms, ecursive least squares. Current research topics.

80 Medical Ultrasonics (3)

undamental principles of medical ultrasonics.

Nave propagation, interaction of ultrasound with issues, beam formation, clinical instrumentation, pioeffects, and Doppler ultrasound. Giesey; D.

581 Research in Electrical Engineering (1–6) ; W, Sp, Su; Y.

590 Selected Topics (1-3)

selected topics of current interest in electrical engineering and computer science. F, W, Sp; Y.

Project Report (1–3 as recommended by department)

595 Thesis (1-9) 5, W, Sp, Su; Y.

598 Seminar (1–4) F, W, Sp, Su; Y.

712 Automata Theory (3)

Development of capabilities and limitations of computers and other digital systems in terms of furing machines, push-down automata, and other organizations; relations between grammar of a computer programming language and nachine which accepts the language. Sp; D.

715 VLSI Design of Neural Networks (4) Preres; 515 or perm. VLSI implementation of neural networks. Multilayered neural networks. Self organizing nets for pattern recognition. Integrated circuit synaptic connections. Active building blocks of the neural networks. Circuits for arithmetic functions. Analog multipliers and convolution circuits. Associative memory imple-mentation. Optical motion sensor. Electronic neural processors. 3 lec, 2 lab. Starzyk; Sp; D.

716 Linear Network Theory I (3)

Prereq: 611 or equiv. High frequency circuit analysis and design using scattering parameters. Broadband limitations on network performance. Signal flow graphs and feedback amplifier theory, stability of feedback amplifiers. Introduction to broadband matching. CAD techniques. W; Y.

717 Linear Network Theory II (3)

Prereq: 716 or equiv. Review of generalized s-parameters. Broad-band matching and design of equalizers. Microwave amplifier design and bias considerations. Low noise, broadband, and large signal design methods. Broadband negative resistance amplifiers. CAD techniques. Sp; Y.

718 Network Topology (3)

Fundamental concepts in linear graph theory, matrix representation of linear graphs, properties of incidence, circuit and cut-set matrices, graphs and vector spaces, derivation of topological formulae for linear lumped networks, application to analysis, and synthesis of communication nets. Starzyk; W; D.

721 Multiport Synthesis (3)

Prereq: S11, S12. Positive-real and bounded-real matrices. Synthesis of lossless n-ports. Synthesis of n-ports with prescribed immittance matrix. Scattering synthesis. Starzyk; D.

75S Power System Reliability (3)

Prereq: 557. Probability theory; reliability concepts; evaluation of reliability of generating, transmission, and composite systems, interconnected systems and DC transmission systems. *Manhire*; *F*; *D*.

756 Computer Methods in Power System Analysis (3)

Prereq: 755. Review of matrix algebra. Incidence and network matrices. Algorithms for formulation of network matrices. 5hort circuit, load flow, and stability studies. *Manhire; W; D*.

757 Probabilistic Simulation of Electric Power Systems (3)

Prereq: 756. Overview of long range generation system expansion planning problem. Load duration based simulation and cumulant method of production costing. Chronological simulation techniques. *Manhire; Sp; D.* 

771 Advanced Digital Communication (3) Prereq: 571. Review of signal/system characterization, including signaling formats and signal spaces; modulation methods and their power spectra, optimum receivers for the AWGN channel, both coherent and noncoherent, carrier and symbol synchronization introduction, intersymbol interference and introduction to signal design for bandlimited channels.

772 Modulations Systems (3)

Prereq: 771. Performance of familiar communication systems within context of statistical concepts and random noise representations, correlation and spectra analysis and narrow band noise, linear modulation, synchronous demodulation, suppressed carrier techniques, angle modulation, noise in FM, threshold effects in FM, frequency division, multiplexing, correlation detection, coherent binary signaling, coherent phase-reversal keying, differential phase-shift keying, optimum detection, and decision theory. Individual problems associated with state of art techniques. Essman; Sp. D.

773 Digital Detection Systems (3)
Prereq: 771. Detection of digital signals using decision theory concepts, conventional and unconventional communication systems, channel characteristics, Hilbert transforms, signal space representations, optimum detection of known signals, detection of signals with finite number of unknown parameters, estimation, estimator-correlator receivers, and suboptimum receivers. Techniques and problems from current literature. Essman; W. D.

774 Mobile Communications I (3)
Prereq: 472/572. This course provides an introduction to mobile communication system design and analysis. Focus is on the physical layer. This first course in the sequence will cover general mobile system design principles for both

terrestrial and satellite mobiel systems.

Representations for stochastic bandpass signals and systems will be covered. The mobile communication channel will be studied in depth, including both large-scale path loss and multipath fading. Effective modulation schemes for digital mobile communicaitons will be studied, including their power spectra, and performance in AWGN and flat fading channels. Statistical characterization of interference will also be covered. An introduction to coding and equalization will be provided. Examples of current & future mobile communication systems will be presented. *Matolak; W.* 

775 Mobile Communications II (3)

Prereq: 472/572. This second course in the sequence of two continues the study of mobile communication system design and analysis by extending the study to advanced topics. Focus is on the physical and data link layers. Topics include diversity techniques, equalization and forward error correction coding with an emphasis on MLSE, CDMA system principles including soft handoff and power control, multiple access scheme capacity estimation, and system control procedures including access, mobility management, and security. Future proposed mobile communication systems will be addressed. Students will also present a term project. Matolak; Sp.

776 Advanced Plasma Dynamics I (3) Prereq: 675. Distribution function and Boltzmann equation, transport equation, BV equation, and relaxation model. Landau damping, kinetic treatment of waves in plasmas. H. Chen; D.

777 Advanced Plasma Dynamics II (3) Prereq: 675, 776. Continuation of 776. Boltzmann collision term, Chapman-Enskog expansion. BBKY equations for plasma confinement and stability. H. Chen; D.

778 Boundary Value Problems I (3)
Partial differential equations derived from engineering problems. Topics include linear spaces and operators, eigenvalue, and eigenfunctions. Sturm-Liouville systems and Othogonal functions, separation of variables in special coordinate systems, generalized Fourier series, and integrals. H. Chen; W; D.

779 Boundary Value Problems II
Techniques for solving boundary value problems,
Green's functions and generalized functions,
special methods making use of symmetries,
images, inversion, and conformal mapping; introduction to integral equation method. H. Chen; D.

780 Principles of CDMA Systems (3)
Prereq: 572. This course will be an introduction to code division multiple access (CDMA) systems, specifically those using direct sequence spread spectrum (D5-S5). The primary focus is the physical layer. Origins of D5-55 will be covered, along with some general spread spectrum/CDMA system features. Jamming and spectral overlay will be analyzed for several types of jammers. Both orthogonal and pseudo-random spreading sequences and their properties will be studied in depth. Initial code acquisition and tracking will be covered. RAKE receiver principles, satellite CDMA principles, and system-level techniques

such as power control and soft handoff will be

studied. An overview of several current/future

areas of research. Multi-user detection concepts

systems will be provided, emphasizing open

will be introduced. Matolak; W.

790 Linear Geometric Control Theory (3)
Prereq: 796 and MATH 511. Topics include a
geometric treatment of controllability and
observability in terms of invariant subspaces and the
concepts of controlled invariant and controllability
subspaces with application to disturbance decoupling
and noninteracting control problems. Lawrence; D.

791 Advanced Digital Control Systems (3) Prereq: 527 or equiv. Analysis of the effects of signal sampling. Modeling A/D and D/A operations. Application of z-transform to digital control systems, stability techniques. Design of controllers for sampled data systems. Mitchell, Irwin; W; Y.

792 Advanced Topics in Automatic Control (3) Prereq: 526 and 527 or equiv. 8asic control system philosophy. Development of control system models. Model reduction. Generalized use of the Nyquist Criterion for determining performance. Model development from test data. Automated and manual frequency response design techniques. *Mitchell; Sp. A.* 

793 Nonlinear Control Theory (3)

Prereq: 623 and 790. Introduction to analysis and design of nonlinear control systems using differential-geometric approach. Topics include distributions, nonlinear coordinate transformations, and Frobenius' Theorem with application to nonlinear controllability and observability, feedback linearization, disturbance decoupling, and noninteracting control. Lawrence; D.

### 794 Adaptive, Learning, and Self-Organizing Systems (3)

Fundamental concepts underlying adaptive, learning, and self-organizing systems. System identification, use of gradient methods, peakholding systems, application of adaptive principle to autopilot and communication systems. Model reference adaptive control, dual control. Self-tuning control, pattern recognition, discriminant functions, training in classifiers, statistical classification, feature selection and ordering, nonparametric procedure, Bayesian learning, stochastic approximation. *Sp. A.* 

#### 795 Advanced Probability and Stochastic Processes for Communications (3)

Prereq: 527 and 571. Characterization of random processes, identification of signals, parameter and random variable estimation, stochastic optimal control problem, dynamics of stochastic systems, stochastic finite-state machines, stochastic discrete-time systems, stochastic continuous-time systems, Markov systems. D.

## 796 Advanced State Variable Methods in Control (4)

Prereq: 527 and 528. Rigorous treatment of controllability and observability for LTI systems; standard state variable forms; duality; minimal realizations; grammians; eigenvalue placement with full state feedback; full and reduced order observers; separation principle; robustness; discrete-time systems; multivariable systems. *Irwin; W; Y.* 

797 Linear Optimal Control (4)

Prereq: 796. Performance functionals discrete-time systems; principle of optimality; Hamilton-Jacobi equation; finite-time solutions; steady-state solutions; asymptotic properties; design. *Irwin; F; Y.* 

798 Numerical Methods in Control (4)

Prereq: 796. 8asic time domain and frequency domain calculations specialized decompositions; specialized matrix equations and their solutions; calculation of minimal realizations; state space methods of transfer function matrix analysis. *Irwin; Sp; Y.* 

819 Theory of Graphs I (3)

Prereq: MATH 510. Fundamental topics of graph theory, e.g., connectedness, path problems, Eulerian graphs, matroids, matching theorems, Hamiltonian directed graphs, acyclic graphs, and partial order. Depth-first search, reducibility of program graph, binary search trees, flows in transport network. Starzyk; D.

844 Advanced Microwave Networks (3)
Analytical study of waveguide junctions. Impedance, admittance, and scattering matrices formulations for waveguide junctions, eigenvalue

problems, symmetrical devices and directional coupler, group theory and its applications to waveguide junctions. *H. Chen; D.* 

#### 845 Computer Solutions of Electromagnetic Problems (3)

General techniques of solutions suitable for digital computation and their application to electromagnetic field problems of practical interest, matrix formulation of field problems, wire antennas and scatters, generalized network parameters, Galerkins method, Rayleigh-Ritz variational method. H. Chen; D.

#### 846 Special Topics in Engineering Mathematics (3)

Concentrated study of advanced mathematical techniques in analytical solution of engineering problems. Selected topics from recent and/or classical literature of applied mathematics, as integral equations, variational and perturbational methods, applications of theory of a complex variable, theory of distributions. Introduction to functional analysis. H. Chen; D.

881 Doctoral Research (1–9) F. W. So. Su. Y.

890 Special Topics in Electrical Engineering (3) Current developments in electrical engineering. Selected topics offered yearly. May be taken for repetitive and variable credit. F. W. Sp. Su; Y.

895 Dissertation (1–9) F. W. Sp., Su; Y.

#### Industrial and Manufacturing Systems Engineering

http://www.ent.ohiou.edu/ise/

The Department of Industrial and Manufacturing Systems Engineering (IMSE) offers two degree options leading to a Master of Science degree: manufacturing systems and manufacturing information systems. Other specialized study concentrations are available in areas of faculty interest, including artificial intelligence, systems simulation, process planning, distribution systems, genetic algorithms, data mining, and location science.

The focus of graduate educational and research activities is on structuring the decision process, system analysis, and the design of complex systems that integrate technical, human, and economic resources within a variety of constraints and environments.

The option emphasizing manufacturing systems has been developed to meet the needs of engineers and other technical graduates who plan to perform industrial and systems engineering and management functions in manufacturing organizations. The option is designed to build upon mathematical and analytical expertise gained from a technical education and

professional experience. It is heavily directed toward using the computer to solve production problems and includes courses from other departments to provide valuable interdisciplinary experiences.

The option in manufacturing information systems educates students who intend to work as industrial and systems engineers in the areas of manufacturing systems and manufacturing management. Information being the key to successful control of these complex systems, students will learn both the fundamentals of database theory and manufacturing applications. The focus of this area is computer integrated manufacturing through information integration.

The department also participates in the integrated engineering Ph.D. program, emphasizing intelligent systems engineering. For more information, see the Graduate Program Guide, available from the department.

Descriptions outlining suggested core courses and electives for the options are available upon request. You are expected to use the core courses as a guide, with the specific program designed jointly by you and your advisor. A plan of study must be submitted to the IMSE Graduate Chair for approval before the end of the second quarter of study.

Each of these options and other concentration areas may be taken with or without a thesis. The thesis option requires a minimum of 45 quarter hours including a maximum of 6 hours of thesis (ISE 695). The nonthesis option requires a minimum of 51 credit hours including a three-credit-hour scholarly project (ISE 694), a formal written report, a nonthesis committee, and formal defense. All full-time graduate students are expected to register for three successive quarters of ISE 630 beginning with their first quarter in residence. Up to six hours of independent study may be taken for degree credit in addition to hours earned in ISE 694 or 695.

A maximum of 12 credit hours of elective graduate level courses may be taken outside the department or the University, provided they are included in an approved plan of study. You are also required to complete at least one-third of your total required hours in graduate-only courses,

while the other two-thirds may be in graduate courses that are cross-listed with certain undergraduate courses.

The department welcomes applications from engineering students and qualified students with a bachelor's degree in physical sciences, including nathematics and computer science. Each candidate is evaluated on previous academic record, work experience, and career goals. All applicants are required to take the Graduate Record Examination GRE), except in extenuating circumstances. International students desiring a graduate associateship must pass a test of clarity of peech (SPEAK test).

#### ndustrial and Manufacturing systems Engineering Courses (ISE)

- 100 Fundamentals of Industrial Engineering (6) teview of fundamental industrial engineering oncepts to provide students with non-IMSE indergraduate degrees the foundation for graduate ourses. Covers material in ISE 532, 540A, 545 and 83. (Not for degree credit for M.S., IMSE.) F.
- 'rereq: 330, 333, 440A. Introduction to current tate-of-the-art and advanced manufacturing ystems design concepts in a CIM environment and na "global economic and marketing system." Uses he "enterprise approach" in a "top down" system lesign approach to manufacturing system design.
- iO2 Manufacturing Systems (4) Applications of industrial and systems engineering techniques, principles, practices, and methodologies as they relate to the operation, inalysis, management, planning, and design of nanufacturing systems. F.
- io3 Material Handling Systems Engineering (4) Provides an understanding of material handling engineering from a system design and application engineering point of view. Instruction in the engineering principles, design criteria operating parameters, performance requirements, equipment resources, and application engineering practices involved in the planning, design, and operation of materials handling systems for nanufacturing, physical distribution, and government operations. A materials handling system lesign project is a required part of the course.
- io4 Applied Engineering Statistics (3)
  Pereq: calculus. Introduction to efficient methods or data collection and analysis. Application of basign to engineering and science data problem areas. 3 ec. (Not for degree credit for M.S., IMSE.) F, W; Y.
- 505 Engineering Statistics I (3)
  Pereq: calculus. Introduction to probability, concept of random variables, discrete and continuous probability distribution, and expectation. (Not for degree credit for M.S., IMSE.) F, W. Y.
- 506 Engineering Statistics II (3)
  Pereq: 505. Functions of random variables, tampling distributions, estimation theory, typothesis testing, and statistical prediction.
  Not for degree credit for M.S., IMSE.) F. Sp; Y.
- 507 Intro to Designed Experiments (3)
  Prereq: course in probability and statistics.
  Design and analysis of engineering experiments from linear statistical model point of view.

Blocking designs, full and fractional factorial designs, analysis of variance, and introduction to response surface methodology. 3 lec. *F;* Y.

509 Cost Engineering (3)

Product cost estimating, product value engineering, and manufacturing performance evaluation in state-of-the-art manufacturing systems. Examines the application of industrial engineering techniques, work measurement, cost accounting, and computers to manufacturing cost measurement and process design.

S10 Decision Theory I (3)

Prereq: perm. Introduction to decision theory and its applications. Modern utility theory and its application to decision making under risk is emphasized. Examples selected from inventory, bidding purchasing, maintenance and investment policies.

#### 514 Robotics in Industrial Systems Engineering (4)

Provides an opportunity to learn and understand the application of industrial robots and their role in industrial and systems engineering. Presents the relationships among product design, process control, robots, design of experiments, and flexible automation. Emphasizes hands-on laboratory exercises.

515 Introduction to Systems Engineering (3) Introduction to systems engineering concepts. Systems structure, open-loop and closed-loop systems, positive and negative feedback. Applications to production and inventory systems, population, and physical systems. Design project required. 3 lec. W.

517 Analytical Foundations of Industrial and Systems Engineering (3)

Special analytical techniques introduced for solution of complex industrial and systems engineering problems. Calculus of finite differences, Fourier analysis, and use of transform techniques in linear system analysis; probability implications of transforms, and probability modeling.

526 Microprocessor Applications in Manufacturing (3)

Comparison and contrast of micro-, mini-, and mainframe computers; comparison of RISC and CICS microprocessors; numbering and arithmetic systems; microprocessor and microcomputer hardware organizations; assembly, procedural, and object-oriented high level languages; basic input/output and interfacing concepts; industrial data acquisition; process control and computer-integrated manufacturing concepts; graphics and industrial applications data processing; and database management for office use and business application. W; Y.

- 527 Manufacturing Data Systems I (3)
  Prereq: 'C' programming. Overview of manufacturing tools, techniques, and applications.
  Database architecture, internal storage methods.
  Structural query language (SQL). Normalization.
  Manufacturing entities and relations. W; Y.
- **528 System Modeling for Manufacturing (3)** Fundamentals of activity and information modeling for software systems design. *Sp;* Y.

530 Engineering Economy (3)

Economic analysis of engineering projects. Intended to provide both basic theory and practical experience in comparing alternatives for capital expenditures, alternatives for providing needed production or services, and alternatives for income generation. 3 lec. (Not for degree credit for M.S., IMSE.) F, W, Sp; Y.

531 Advanced Engineering Economy (3)
Prereq: perm. Risk explicitly treated by
consideration of uncertainties of cost estimates,
forecasting and other economic variables.
Construction and use of mathematical models
for analysis of engineering alternative. 3 lec.

- 532 Inventory and Manufacturing Control I (3) Design of inventory and manufacturing control systems. Forecasting, continuous and periodic review inventory systems. Relationship between production schedules and inventory. Production scheduling systems. Sequencing models, dispatching rules. 3 lec. F; Y.
- 533 Industrial Computer Simulation (3) Simulation of industrial problems using digital computers. Stresses user-oriented programs. Applications include use of library routines and simulation languages such as SIMAN and GPSS. Projects involving design of simulation programs required. (Not for degree credit for M.S., IMSE.) W; Y.
- 534 Network Analysis and Scheduling (3) Engineering project planning using such techniques as PERT and critical path method; shortest route; maximal flow; minimal spanning tree; flow graphs; GERT; and other network models. 3 lec.
- 535 Quality Control and Reliability (3)
  Application of statistics to control of quality and reliability in products and services. Design of acceptance sampling and process control systems, including attention to inspection and test methods. Design and implementation of quality assurance programs, including nonstatistical dimension of quality systems. 3 lec. Sp; Y.

536 Project Management (3)

Development and utilization of network techniques to schedule activities, develop financial budgets, allocate resources, and control progress and costs of practical projects. Students introduced to use of available computer programs that generate project schedules. 3 lec. F; Y.

539 Information Systems Engineering (3) Prereq: C programming. Design of information systems including databases, displays, and the automatic storage, retrieval, and transmission of data. F; Y.

540A Industrial Plant Design I (2)

Prereq: 333, 445A. Introduction to two-quarter program in which students design a manufacturing facility. First quarter topics include product and process analysis, plant size, layout and location, building design, estimation of production time for each operation, production scheduling, and inventory control. (Not for degree credit for M.S., IMSE.) W; Y.

**540B** Industrial Plant Design II (3) Prereq: S40A. Continuation of S40A. (Not for degree credit for M.S., IMSE.) *Sp; Y.* 

- 541 Introduction to Operations Research (4) Basic methodology of operations research. Application and mathematical structure of linear, integrated, and dynamic programming; queuing theory; and other modeling techniques. *W, Sp; Y.*
- 542 Inventory and Manufacturing Control II (3) Branch and bound scheduling algorithms, horizon planning, control of integrated production, inventory and workforce systems, and linear decision rules. 3 lec.

544 Applications of Mathematical Programming (3)

Linear programming theory and practice. Topics include simplex method, two-phase method, duality theory, and sensitivity analysis. 3 lec. *Sp; D.* 

546 Design of Maintenance Systems (3) Provides a working knowledge of maintenance systems and the ability to design a maintenance system.

561 Operations Research (3)

Prereq: \$17. Queuing theory and its applications. Single and multiple channels with various system parameters and queue disciplines. Both steady state and transient conditions investigated. Realworld data collection required. 3 lec.

#### S62 Operations Research II (3)

Prereq course in probability. Theory and application of dynamic programming to discrete and continuous multistage processors. Principle of optimality; forward and backward recursion; state and decision inversion; converging and diverging branch systems; feed-forward and feedback loops; computational algorithms and programs; stochastic dynamic programming. 3 lec. D.

#### 563 Operations Research III (3)

Prereq: 544. Theory and application of integer programming, convex programming, geometric programming, gradient search methods. D.

#### S64 Reliability in Design (3)

Application of reliability theory to equipment or facilities design. Design of testing systems and procedures for effective reliability measurement and prediction. Analysis of overall system reliability as function of component reliability. 3 lec. D.

#### 565 Information Systems Design (3)

Design and control of information flow in organizations. Information storage and retrieval by data processing equipment. Students practice design of information systems in laboratory. 3 lec.

#### 583 Work Design (3)

Prereq: SOS. Design of work systems and measurement of work. Topics include job methods, operation analysis, charting techniques and schematic models, stop-watch time study, work sampling, predetermined time systems, standard data, incentive wage systems, and learning curves. 3 lec, 2 lab. (Not for degree credit for M.S., IMSE.) F; Y.

### 589 Special Investigations (1–6) E. W. Sp., Su; Y.

### 590 Advanced Problems in Computer Application (1–6)

Special investigations of advanced systems and industrial engineering problems involving use of digital or analog computers. F, W, Sp, Su; Y.

#### 626 Artificial Neural Networks in Manufacturing (3)

Artificial neural network applications for the development of intelligent manufacturing systems. Integration issues with induction, genetic algorithms, and fuzzy logic paradigms. *Sp; Y.* 

#### 630 Seminar in Industrial and Systems Engineering (1)

Current topics and new developments in industrial and systems engineering. Required of all IMSE graduate students each quarter until three credit hours are earned. F. W. Sp; Y.

## 632 Seminar on the Control of Inventory and Manufacturing Systems (3)

Advanced inventory control, scheduling, and forecasting techniques. Critical review of current literature on inventory and manufacturing control including advanced production scheduling and forecasting techniques. 8ox-Jenkins Methodology. 3 lec.

#### 640 Facilities Layout and Location (3)

Prereq: 440A. Construction and improvement algorithms for discrete layout problems. Math programming formulations for continuous layout problems; planar and network location models. Design of linear, nonlinear, quadratic, and network programming applications. Analysis of trade-offs between model realism and solvability. Design project required.

#### 642 Warehouse and Distribution Systems Design (4)

Quantitative and operational approach to the design of the total receiving, storage, and retrieval system including packaging, palletizing, storage, material handling, order picking, shipping, facility sizing and layout, information systems, and operating policy.

#### 681 Research (1~18) F, W, Sp, Su; Y.

## 689 Advanced Topics in Industrial and Systems Engineering (1–6) Readings and lectures. D.

694 Nonthesis Independent Research (3) F, W, Sp, Su; Y.

## 695 Thesis (1–12) F, W, Sp, Su; Y.

#### 708 Quality Systems (4)

Prereq applied stats. Modern quality systems concepts of Total Quality Control (TQC), Total Quality Management (TQM), and Quality Function Deployment (QFD), etc., with an emphasis on "quality by design." Includes Taguchi Methods for robust product and process design and western experimental design methodology.

## 709 Intelligent Engineering Systems (4) In-depth study of techniques available in computer technology and human-machine systems to aid in the analysis of decision-making situations using expert systems technology.

710 Genetic Algorithms in Manufacturing (3) Genetic algorithms are search algorithms based on the mechanics of natural selection and natural genetic operators such as crossover and mutation. In this course, genetic algorithms and evolutionary computation concepts will be presented. Their application to engineering problems in manufacturing, design, and regression will be emphasized. In addition, their connections to other artificial intelligence paradigms, such as fuzzy logic and neural networks, will be introduced (i.e., soft computing). Sp. Y.

## 732 Seminar in the Control of Inventory and Manufacturing Systems (3)

Prereq: 532 or equiv. Critical review of current literature on inventory manufacturing control. Presentation of selected papers, with class participation in constructive critique. Related research within department included. Representatives of industry invited to present their control systems for critique.

## 733 Advanced Systems Simulation (3) Advanced discrete event simulation modeling. Modeling, design, statistical analysis, and

Advanced discrete event simulation modeling. Modeling, design, statistical analysis, and optimization of large scale systems. Programming and comparison of simulators, simulation languages, and object-oriented simulation tools.

#### 737 Computer Systems Seminar (1–3)

Prereq: 528. Analytic examination of selected topics in computer system planning, design, and evaluation. Presentation of selected papers or student research, with class participation in constructive discussion. Representatives from government, industry, or other educational institutions are invited to lead discussions on topics of current interest.

## 790 Special Topics in Industrial and Systems Engineering (1~6)

Course content and structure (lecture, lab, or combination) will be determined at the discretion of the instructor. Examples include artificial neural networks in manufacturing, artificial intelligence in manufacturing system design, advanced manufacturing database architecture, and evolutionary computation in job shop scheduling.

#### 891 Special Investigations in Industrial and Systems Engineering (1–6)

Course content is determined at the discretion of the instructor with an emphasis on individual study.

#### Integrated Engineering

http://www.ent.ohiou.edu/

An interdisciplinary Ph.D. is offered with three specialty areas: civil engineering, industrial engineering, and mechanical engineering.

Admission to the program is restricted to students who wish to study in one of the three specialties. An M.S. in engineering or a related field is required for admission. Further admissions information is available from the associate dean for research and graduate studies of the Russ College of Engineering and Technology.

A plan of study is developed on an individual basis by the student and his/her advisor. All plans of study must include a set of designated core courses (a list is available in the dean's office) and an appropriate research focus. The plan must include at least 12 credit hours from each of two departments in the Russ College of Engineering and Technology or 8 credit hours from each of three departments. A minimum of 20 hours of coursework must be at the 600 level or above, including 10 hours at the 700/800 level. A minimum of 90 credit hours above the M.S. (including 45 credit hours for the dissertation) is required. The plan must be approved by each student's dissertation advisory committee, the track coordinator, and the integrated engineering steering committee.

Each student must satisfactorily complete a qualifying examination near the beginning of the program and a comprehensive examination near the completion of all coursework. The comprehensive examination measures knowledge and integration of the subjects necessary to successfully complete the dissertation. The examination measures the student's knowledge and integration of subject matter necessary for the successful completion of the dissertation.

#### Integrated Engineering Courses (IE)

881 Doctoral Research (1-15)

895 Doctoral Dissertation (1-15)

#### **Mechanical Engineering**

http://www.ent.ohiou.edu/me/

Graduate work leading to a Master of Science in mechanical engineering can be formulated with specialization in mechanical systems, CAD/CAM, manufacturing, biomedical, or thermofluid sciences. Areas of interest include computer-aided design and manufacturing, microcomputer control and data acquisition systems, automated manufacturing systems, finite element analysis, materials processing, robotics, combustion, energy engineering and management, thermal stresses, air pollution, composites, stirling engines, heat transfer, fluid mechanics, biomechanics, biomolecular simulation, biomaterials, and mechanical design. A technology management option is also offered.

The basic requirement for admission is a B.S. in mechanical engineering. Applicants holding degrees in other fields of engineering or from nonaccredited engineering colleges may be required to make up deficiencies prescribed by the department. The Graduate Record Examination is required except in extenuating circumstances. Special programs of study leading to the M.S. in mechanical engineering are available for students who have earned a B.S. in science with a major in physics or mathematics. These programs are designed to make up for deficiencies and prepare you for graduate study in one to three quarters.

Both thesis and nonthesis options are available for the M.S. program. The minimum requirements for the thesis program are 33 credits of coursework, including 20 credits in the area of specialization, and 12 credits of thesis work. Students must register for three quarters of graduate seminar. For the nonthesis program, the minimum requirements are 42 credits of coursework, including 27 credits in the area of specialization and 6 credits of research project. The program of study must include fundamental courses in areas of design and thermofluids. ME S96, ME S97, and ME 636 are required core courses.

An interdisciplinary Ph.D. is offered in Mechanical Engineering as part of a collegewide program. Students applying to this

program must have an M.S. degree in engineering or related field. After admission to the Ph.D. program, students must pass a qualifying exam in the areas of solid mechanics, fluid mechanics, controls, and thermal sciences. The program of study requires 45 credit hours of courses, of which a minimum of 12 credit hours must be from outside the mechanical engineering department. For additional information, see the Integrated Engineering listing.

Financial assistance is available in the form of graduate fellowships, research assistantships, and graduate assistantships.

The department recommends that you enter the program in the fall quarter. Contact the department for details on graduate programs.

International students whose proficiency in English is inadequate are encouraged to enroll in the Ohio Program of Intensive English (OPIE) at Ohio University in the summer quarter preceding their first quarter of study in the department.

#### **Mechanical Engineering Courses** (ME)

503 Machine Design I (4)

Prereq: 313, CHE 331. Applications of mechanics, mechanisms, materials, and mechanical processes to the design and selection of machine members and units of power transmission. Halliday; Sp; D.

504 Machine Design II (4)

Prereq: 403. Morphology and anatomy of engineering design. Inventiveness, engineering analysis, optimization, statistics, and decision making. Engineering design project. Graduate credit for non-mechanical engineering majors only. W.

- 506 Analysis and Design of Mechanisms (4) Analysis and synthesis of planar and threedimensional mechanisms using classical and modern analytical approaches. Structural synthesis of mechanisms and dimensional synthesis of linkages for function generation, path generation, and rigid-body guidance. Applications of matrix methods, optimization techniques, and computer solutions. Williams; D.
- 507 Fundamentals of Nuclear Engineering (4) Nuclear engineering, including nuclear reactions, radiation detection and measurement, reactor control, radiation shielding, effects of radiation on materials, uses of radioactive materials, D.
- 508 Nonlinear Vibrations (3) Qualitative and numerical study of mathematics and physics of nonlinear systems. Formulations of nonlinear engineering problems, solutions techniques, and stability analysis. Halliday, Pasic; Sp; D.
- 509 Advanced Machine Dynamics (3) Theoretical analysis and applications of dynamical aspects and problems in machines and their components. Adams; D.
- 510 Advanced Vibrations Analysis (4) Prereg: 592. Vibrations of multi-degree-offreedom, lumped, parameter systems and of

continuous systems such as bars, beams, and plates; numerical methods of solution; use of Rayleigh-Ritz and Galerkin procedures. Halliday, Pasic; F; D.

512 Heat Transfer (4)

Prereg: 321, CE 340. Basic concepts of conduction in one or more dimensions, steady and transient modes. Radiation, dimensional analysis, fundamentals of convection in various modes, heat exchanger design. 4 lec. Graduate credit for non-mechanical engineering majors only. Sp; Y.

- 513 Conduction, Convection and Radiation (4) Advanced analytical treatment of conduction, convection, and radiation. Boundary value problems, orthogonal expansions, moving heat sources, multidimensional problems with varying boundary conditions, finite difference analysis, conformal transformations, radiation network matrix analysis, diffuse-specular exchange, Monte Carlo techniques, etc. Alam, W.
- 514 Convection Heat Transfer (4) Prereg: 546. Convection heat transfer. Hydrodynamic and thermal boundary layers in forced and free conversion, 3 lec. Sp.
- 515 Thermal Stress Analysis (4) Prereg: CE 528. Thermal stresses developed in machine and structural components. Procedures for solving stress problems associated with elevated temperatures in such components as tubes, rods. and plates as encountered in nuclear reactors, engines, and airplane and missile structures. D.
- 516 Combustion (3)

Kinetic theory and properties of gases, chemical reactions in gases, diffusion flames, detonation, combustion of atomized sprays, combustion diagnostic techniques, combustion and air pollution. Alam, Bayless; D.

517 Design of Thermal Systems (4)

Design of systems in which thermodynamics and heat and mass transfer are major considerations. Emphasis on total design approach incorporating economic considerations and optimization techniques. Typical systems include power, propulsion, environmental, cryogenic. D.

Mechanical Engineering Experimentation (1)

Instruction in experimental procedure and experience in designing and executing laboratory experiments. Planning and execution of experiments to acquire answers to assigned problems. Variety of areas covered including control systems, energy conversion, fluid flow, heat transfer, motion measurements, stress-strain. Instructional guidance provided by entire mechanical engineering staff. Provides familiarity with variety of instrumentation and procedures. Three-quarter sequence with experimental subjects phased with prerequisites. D.

519 Mechanical Engineering Experimentation (1)

Continuation of 518. See 518 for description. D.

Mechanical Engineering Experimentation (1)

Continuation of 519. See 518 for description. D.

522 Stirling Cycle Machine Analysis (3) Prereq: 328, ET 240, CE 340, and concurrent with ME 412. Analysis and simulation of Stirling cycle engines, in which the single phase working gas operates in a closed thermal power cycle. Development and use of computer simulation techniques to model the nonsteady flow conditions including thermodynamics, heat transfer, and fluid flow friction effects. Urieli; W; Y.

Gas Dynamics I (3)

Prereg: CE 340. One- and two-dimensional gas dynamics, isentropic flow, flow with heat transfer, friction, shocks, generalized onedimensional flow. Applications to propulsion systems. 3 lec. D.

525 Vehicle Propulsion Systems (4)

Prereq: 524. Applications of basic engineering disciplines to design and analysis of ground vehicle propulsion systems. Emphasis on new concepts. Extensive use of computer modeling. Term report required. D.

526 Stirling Machine Design Colloquium (2) Unstructured lecture, roundtable discussion, project and model presentation, laboratory. Topics include various practical problems and issues related to the design, development, and testing of Stirling cycle machines and components. Participation of all students is required in terms of podium presentations, projects, and models, as well as a final report. D.

527 Power Station Engineering (3)
Prereq: perm. Application of the principles of thermodynamics, fluid mechanics, and heat transfer to the analysis of combustion, pulverized coal combustion, control of gaseous emissions, nuclear fission, steam generators, economizers, preheaters, superheaters, turbines and turbomachinery, stacks, forced and induced draft, feed pumps, and heat balances. Optimization of power plant design and operation. Bayless; Y.

#### 529 Mechanics and Control of Robotic Manipulators (4)

Prereq: perm. Classification and applications for mechanical manipulator systems. Manipulator motion description, forward kinematics transformations, and solution of inverse kinematics equations. Velocity kinematics and manipulator dynamics equations. Trajectory generation and control schemes including sensory feedback. Laboratory excercises to augment lecture material. Co-listed with EE 429/529. Williams; Sp.

531 Atmosphere Pollution Control (4)
Prereq: perm. Sources of air pollution from major industries, internal combustion engines, and other sources. Techniques available for measuring particulate and gaseous pollutants in atmosphere and at their sources. Techniques available for control and future possibilities for control of air pollution. Bayless; Y.

#### 532 Analysis and Simulation of Transport Processes (4)

Use of CFD software to study conduction, convection, and radiation. Analyze governing equations by simulation and visualization. Fundamentals of CFD programming. Staff.

Fundamentals of Aerosol Behavior (3)
Prereq: 321, 412. Aerosol characterization transport properties, convective and inertial deposition, light scattering and visibility, experimental methods, coagulation, gas to particle conversion, general dynamic equation for aerosols. Alam. Bauless: D.

535 Energy Engineering and Management (3) Basic concepts and objectives of energy management, energy audit, engineering evaluation of several energy systems, availability analysis, second law efficiency, economic evaluation, and application of these principles to case studies. D.

540 Direct Energy Conversion (4)

Coupled flows, irreversible thermodynamics, behavior of ionized gases, general principles of unconventional thermodynamic cycles; thermoelectricity, thermionics MHD, fuel cells. D.

545 Advanced Numerical Methods (4)
Prereq: 597 or equiv. Numerical methods for solution of ordinary and partial differential equations, stability considerations and error estimates, application to variety of engineering problems, numerical method of lines and integration procedures for stiff ODE systems. W; Y.

546 Potential Flow Theory (3) Inviscid flow theory. General equations of fluid mechanics, study of potential flows. 3 lec. Alam, Graham: F: Y.

547 Viscous Flow Theory (3)

Mechanics of fluid resistance, laminar and turbulent flow, applications to external boundary layer flow and to flow in ducts. 3 lec. *Graham*; *W*; *Y*.

550N Computer-Aided Design I (4)

Applications of contemporary computer modeling techniques to solve complex problems in stress, heat transfer, dynamic systems, and fluid flow. Emphasis given to applications of these techniques to solve specific problems in mechanical engineering design. Gunasekera, W; Y.

551 Computer-Aided Design II (4)

Prereq. 550. Existing CAD techniques, graphics input and output of data, advanced CAD system, requirements for a general CAD system, graphical and utility functions, filing facilities, editors, software designs and organization, solid modeling, 3-D display, facilities, application of CAD techniques for finite element data preparation and display, automated mesh generation. Gunasekera; D.

#### 555 Mechatronics I (4)

Design of intelligent devices. Interfacing of microand minicomputers with machines. Microprocessor characteristics, actuator characteristics, visual pattern recognition, design of devices. Theory and laboratory. *Lew; Sp.* 

556 Mechatronics II (3)

Prereq: 455. Kinematics and dynamics of computer-controlled machines, robot sensors, and robot-control language concepts. Short laboratory exercises and major robotics project on subjects mentioned above required. Lew, D.

557 CAD/CAM I (4)

Emphasis on teaching computer-aided design/computer-aided manufacturing with following topics covered: menu basis, training files, interactive graphics design system, mechanical design system, system interfaces with other software, data base management retrieval system, EDG-graphics editor, EDT-VAX/VMS editor and VI UNIX editor; VAX/VMS-based DCL commands, introduction to UNIX and "C," and other topics as needed. Successful completion of an approved minor project also required. Gunasekera, Mehta; D.

#### 558 CAD/CAM II (5)

Prereq: 557. Continuation of 557; emphasis on advanced application in (a) programming, (b) finite element pre/post processing and analysis, (c) B-Spline and sculptured surfaces, and (d) computer and direct numerical controls (CNC/DNC). Introduction to usage of third-party finite-element analysis software for metals, polymers, and composites, e.g., ALPID, NIKE, DYNA, TOPAZ, ABAQUS, POLY-CON, NASTRAN, etc. Successful completion of an approved major project also required. *Gunasekera, Mehta; D.* 

#### 560 Computer-Integrated Manufacturing/ Processes (4)

Prereq: 450. Introduction to numerical control; control systems for NC; communication media; NC programming languages—SPPL and APT; mathematics for NC; Parametric Splines, Bezier Curves and 8-Splines; sculptured surfaces, including Coons bi-cubic patch and 8-surf. Gunasekera; D.

562 Manufacturing Processes (4)

Prereq: grad in ME, CHE, or IMSE. The basic theory of plasticity and its application to manufacturing processes. Applied theories of metal working processes such as forging, extrusion, rolling, and some aspects of machining; theories of polymer processing, composite and reinforced materials processing, use of application of materials information systems, and mapping techniques. *Gunasekera*: W: Y.

563 Mechanical Metallurgy (3)

Origin and control of mechanical properties of metals. Elasticity, plasticity, fatigue behavior, corrosion, and wear. Introduction to fracture

mechanics. Thermal, mechanical, and chemical strengthening techniques. Halliday: D.

565 High Temperature Alloys (4)
Physical, mechanical properties of superalloys.
Application of superalloys.

576 Automotive Engineering (4)

Overview of automotive engineering, including modeling, simulation, design, and testing of land vehicle systems with emphasis on performance, safety, fuel economy, and emissions. Broad exposure to all topics through case studies.

580 Graduate Colloquium (1)

Structured as an open graduate colloquium for discussion of present research topics as well as possible future areas of interest. Guest speakers, faculty, and graduate students presenting the results of their investigations, with discussion moderated by speakers. F, W, Sp; Y.

- 584 Problems in Thermal Machinery I (3)
  Prereq: good academic record. Supervised research
  in thermal machines. Individual work on experimental or analytical project involving current problems.
  Elect two-term sequence to allow adequate time for
  completion of meaningful project. D.
- 585 Problems in Thermal Machinery II (3)
  Continuation of 584 See 584 for description. D.
- 586 Problems in Thermal Machinery III (3) Continuation of 584 and 585. See 584 for description. *D.*
- 589 Special Investigation (1–6) F, W, Sp; Y.

#### 591 Mechanical Vibrations I (4)

Characteristic phenomena of mechanical vibrations encountered in machines and structures (of one-degree-of-freedom) in their quantitative investigation. 5imple harmonic motion; free, transient, and forced vibrations; damping effects; demonstrations; computer applications. Graduate credit for non-mechanical engineering majors only. Halliday, Lew; F; Y.

- 592 Mechanical Vibrations II (4)
  Prereq: 591. Application of matrix methods;
  two-degree-of-freedom systems; lumped mass
  systems with several degrees of freedom; and
  methods for normal mode determination. 3 lec,
  1 computation session. Halliday; W.
- 593 Lubrication and Bearing Analysis (3) Concepts of boundary, hydrostatic, and hydrodynamic lubrication and their application to different bearing geometries. McKee and McKee, Boyd, and Raimondi methods of bearing design and their optimization. Solid lubrication, porous, and gas bearings. Lubrication and wear in living and artificial human joints and human hipjoint prostheses. Halliday; D.
- 594 Advanced Machine Design (3) Prereq: 403. Advanced considerations in design and analysis of machine members, pressure vessels, impact loading, thermal stress analysis, fatique in metals. 3 lec. D.

#### 595 Introduction to Kinetic Theory and Statistical Thermodynamics (4)

Kinetic theory, classical and quantum statistical mechanics with application to engineering devices. 3 lec. *D.* 

- 596 Experimental Methods in Design (3) Investigation and evaluation of experimental methods used to obtain design and performance data. Techniques of photoelasticity, strain measurements, and vibration measurement. Y.
- 597 Methods of Engineering Analysis I (4)
  Prereq: MATH 340. Methods of analyzing
  equilibrium and eigenvalue problems in
  mechanical engineering and engineering
  mechanics; matrix methods; variational methods;
  numerical methods. Pasic; F; Y.

501 Advanced System Analysis and Control (3) Prereq: 401, MATH 211 or 410 or 411. The application of modern control theories to the synthesis of dynamical systems. Topics include the analysis of the behavior of linear systems, controllability and observability. Synthesis in the eigenvalue domain: modal control. Synthesis of table systems and optimal linear systems in the time domain. Williams; W.

#### Mechanics and Control of

Multi-Degree-of-Freedom-5ystems I (3) fechniques of analysis and design of multidegree of freedom planar and spatial mechanical systems: kinematic structure, coordinate transformations, inverse solutions, workspace, path selection, dynamics, and control. Williams; F.

- 305 Dynamics: Theory and Applications I (3) Partial differentiation of vector functions in a reference frame, configuration constraints, generalized speeds, motion constraints, partial angular velocities, and partial linear velocities, nertia scalars, vectors, matrices, and dyadics, principal moments of inertia. Lew; W.
- of Dynamics: Theory and Applications II (3) Prereq: 605. Generalized active forces, contributing and noncontributing forces, generalized nertia forces, relationships between generalized active forces and potential energy, generalized nertia forces and kinetic energy. A continuation of 605. Williams: D.
- 507 Optimal Control of Dynamic Systems (3)
  Dptimization problems for dynamic systems:
  unctional and extremums; continuous systems with
  erminal and path constraints; integral constraints;
  nultistage systems; feedback control for linear
  systems with quadratic costs; neighborhood
  extremal paths and second variation. Lew; D.
- i11 Advanced Kinematics (3) (inematic analysis and synthesis of planar and threeimensional mechanisms using classical and modern analytical approaches. Application of matrix methods, optimization technique, and computer solutions.
- 520 Free-Piston Stirling Machines (3) Prereq: 509 or 592, with 522. Analysis of freesiston Stirling cycle machines. Covers applications to power production, heat pumping, cryocooling, and refrigeration. Analytical solutions to multibody dynamics and mechanical oscillators. Fransient performance and stability. Berchowitz.
- 522 Design of Stirling Machines (3)
  Prereq: 522, with 620. Introduction to the design process. Stirling machine design procedures—
  scaling, heat exchanger sizing, pV sizing; configurations—crank, hybrid and free piston machines; examination and comparison of existing designs; general issues—materials, stress (fatigue, creep, rupture), seals and bearings, balancing; heat exchanger design, heat transport systems and burners. Group design projects may typically be one of the following: appropriate technology FPSE, regenerator test rig, free cylinder engine with linear alternator, simple crank engine, cooler, free-piston alpha engine, Ringbom engine, Rallis engine. D.
- 625 Stirling Machine Design Project (1–15) Prereq: 526, 514, 622. The capstone design project for the Stirling cycle machines—design option; students choose a mentor from the Stirling machine design specialists involved in the Stirling machine industry. D.

#### 630 Active Structures (3)

Prereq: perm. Advanced analysis, design, and control for active structures (variable geometry trusses). Classification and application of active truss modules.

633 Numerical Heat Transfer and Fluid Flow (4) Prereq: 513, 546, or 547. Numerical solution techniques in heat and mass transfer, fluid flow, and related processes. Includes governing conservation equations, discretization methods, heat conduction, convection, diffusion, and calculation of flow field. Alam; D.

#### 636 Applications of Numerical Methods in Mechanical Design (4)

Prereq: CE 520/ME 557, ME 633. Application of engineering analysis and boundary element method to solve linear and nonlinear problems in engineering related to fluid flow, heat transfer, dynamics, plasticity, and convection. Selection and application of appro-priate numerical technique. Other advanced topics related to Gaussian integration, frontal solutions, and algorithms for parallel processing will be introduced as needed. Alam, Mehta; W.

#### 651 Advanced CAD (4)

Application of CAD to mechanical design. Use of CAD/CAM software.

#### 659 Finite Element Applications in Bioengineering (5)

Includes review of finite element technique (FEM); introduction to boundary element method (BEM); the biology and composition of bone; mechanical properties of bone and tissue; stress analysis of the femur, tibia, skull, spinal cord, and joints using finite element method; application of FE and BE techniques in bone prostheses and implants; composite material modeling of bones using Abaqus; analysis of blood flow in arteries treating it as a non-Newtonian fluid. Finite element packages such as I/FEM, Patran, Abaqus, BET, FIDNAP, NIKE, DYNA, and TOPAZ are used. Mehta; Su; Y.

- 675 Destructive Testing of Materials (3)
  Prereq: CE 524. Testing and analytical considerations in destructive testing of materials; interpretation of results and sources of errors in hardness, tensility, impact, fatigue, and pressure testing of materials; residual stress determination in formed metallic parts. Dehghani.
- 677 Biomedical Engineering Materials (4)
  Prereq: Grad Status. Course covers Biomaterials
  and Biological Materials, their application and
  modeling. The course contents are more focused
  on developing new biomaterials and their use in
  the biomedical industry.

681 Research (1–15)

F, W, Sp, Su; Y.

695 Thesis (1–15)

F, W, Sp, Su; Y.

#### 704 Mechanics and Control of

Multi-Degree-of-Freedom Systems II (3) Prereq: 604. Advanced analysis and control techniques for multi-degree-of-freedom mechanical systems: closed-chain mechanisms, space manipulators and structures, redundant mechanisms, dynamic characterization, advanced strategies of control. Lew, Williams; D.

705 Dynamics: Theory and Applications III (3) Prereq: 606. Dynamical equations of motion, linearization, steady motions, and motions resembling state of rest, integrals of equations of motion, exact closed form solutions, numerical integration of differential equations of motion, determination of constraint forces and constraint torques, collisions, and small vibrations. A continuation of 605, 606. Lew, Williams.

#### 712 Advanced Heat Transfer (5)

Prereq: 513 or 514. Advanced analysis of heat transfer, with emphasis on mechanical engineering processes. Lumped, integral, and differential formulations, time dependent boundary conditions, steady periodic problems. Combined conduction, convection, and mass transfer in complex heat transfer processes. *Alam, Graham,* 

### 720 Advanced Nonlinear Finite Element Analysis (5)

Prereq: 551 or CE 520. Advanced study in finite element analysis of solids and fluids, with emphasis on methodologies for nonlinear problems. Fundamental theory and computer implementations of various techniques are examined. Restricted to small groups, with extensive student participation required. Dehghani, Graham, Gunasekera, Sargand; F; Y.

751 Advanced Computer-Aided Design (4) Prereq: CE 520 or ME 550N and ME 557. Application of advanced CAD techniques to mechanical design problems. Interactive computer programming, mechanical tolerancing. 50lid modeling and finite element applications. Pre- and post-processing of FEM data. Automated mesh generation techniques. Cubic splines, B-splines, and sculptured surfaces. Gunasekera; D.

## 760 Advanced CAD/CAM/CAE of Dies and Molds (4)

Prereq: 551 or 557. Formulation of the design basis for dies and molds; analysis of material flow through dies; development of criteria for design optimization, heat transfer, and die stress analysis. Theoretical basis for describing 3-D die geometry of complex dies for computer-aided manufacture. Applications in extrusion, forging die casting, and injection molding dies. Development and use of computer software in CAD/CAM/CAE of dies. Gunasekera; D.

## 762 Advanced Topics in Non-Newtonian Fluid Dynamics (5)

Prereq: 557, 633, or CE 520. Includes constitutive modeling including power law fluids, maxwell fluids, and models of differential and integral type. Formulation schemes for non-Newtonian fluid dynamics using finite element analysis and its applications. *Gunasekera, Mehta*.

776 Special Topics in Materials Processing (4) Prereq: 563 or CHE 620. Advanced topics in selected areas of materials processing technology. Processing by deformation, solidification, and deposition are possible areas of study. Alam, Dehahani. Gulino: D.

## 784 Fracture and Fatigue of Engineering Materials (4)

Prereq: CE 528 or CE 523. Analysis of crack-tip stress field, energy concepts and crack growth criteria, conservation integrals, crack life prediction, mechanisms of fatigue damage, and high-cycle and low-cycle fatigue damage. Pasic; D.

785 Plasticity: Theory and Application (4) Prereq: 597, CE 523, or CE 529. Theory of plasticity, stress-strain relations for perfectly plastic and strain hardening materials, yield criteria and constitutive equations of plastic bodies, boundary value problems of plasticity, the slip-line theory and applications. Pasic; D.

#### 790 Special Topics in Mechanical Engineering (1–6)

Prereq: perm. Advanced topics in selected areas in mechanical engineering.

#### 791 Special Investigations (1-6)

Prereq: perm. Advanced topics in mechanical engineering with an emphasis on individual study.

797 Advanced Engineering Analysis (4)
Prereq: 597, CHE 642. Unified approach for obtaining solutions to a variety of engineering problems, with emphasis on mechanical engineering topics such as transport processes, nonlinear vibrations, and dynamics. Focus on advanced/approximate methods. Pasic. Alam: D.

## College of Fine Arts

Jennings House

Raymond Tymas-Jones Dean

Charles McWeeny
Associate Dean

http://www.ohio.edu/finearts/index.html

The College of Fine Arts at Ohio University offers graduate degrees in five of its six schools. The School of Art offers an M.F.A. in ceramics, painting, photography, printmaking, sculpture, art history, and art history/studio, as well as an M.A. in art education. The School of Interdisciplinary Arts offers a Ph.D. in the arts, with emphasis on art, architecture, film, music, and theater. The School of Dance does not offer a graduate degree, but graduate courses are available each quarter. The School of Film offers an M.F.A. in film scholarship or production and an M.A. in scholarship. The School of Music offers a Master of Music in applied music (performance and performance-pedagogy), history and literature, theory, composition, music therapy, and music education. The School of Theater offers an M.A. in theater history and criticism or theater general, and an M.F.A. through professional programs in acting, directing, playwriting, and production design.

An interdisciplinary M.A. is also available. See the Individual Interdisciplinary Programs section for additional information.

Graduate support is available in the form of teaching, research, and graduate assistantships. Graduate internships are also available for selected degree programs. You can obtain information on graduate support and financial aid by contacting the director of the graduate program in each school.

## School of Art

http://www.ohio.edu/art/

The School of Art is dedicated to the development of diverse and exceptional artists, scholars, and educators. Programs are designed to reflect a professional art school, one which promotes rigorous creative and scholarly activity. An important part of the school's mission is to prepare students for post-graduate careers, while enriching their own vital interests and personal goals in the visual arts.

#### Studio M.F.A.

A three-year Master of Fine Arts degree is offered in studio arts: ceramics, painting, photography, printmaking, and sculpture. The first and second years are primarily devoted to studio, seminar, art history, and elective coursework, while the third year is an intensive commitment to studio time in preparation for the thesis exhibition. A normal full-time academic load is 18 credit-hours per quarter, and progress toward the degree is guided by the student's graduate review committee members to the successful completion of 135 credit hours.

Credit-Hour Requirements Summary:

46 studio area

14 studio electives

12 art history/academic studies

12 open electives

6 seminars

90 minimum course credits 45 thesis credits

#### 135 TOTAL

Each student accepted into the School of Art graduate program is assigned an advisor who acts as the chairperson for the student's formal reviews until matriculation.

#### Review Process:

First-Year Progress Review
Occurs during the second full-time
quarter of study and constitutes a
progress assessment of the student's
work by his/her committee members.

<u>First-Year M.F.A. Candidacy Review</u>
Occurs during the third full-time quarter of study and admits the student to full candidacy for the degree by the student's committee members.

Thesis Proposal Review
Occurs during the sixth full-time
quarter of study and establishes the
goals and guidelines of the student's
thesis exhibition.

#### Thesis Exhibition Review

Occurs during the final full-time quarter of study in the third year and satisfies an oral defense of the thesis exhibition.

The School of Art requires that candidates for the M.F.A., at successful completion of the degree, prepare visual documentation of the work, either 35mm color slides or CD-Rom, to be permanently housed in the Visual Resources Library.

#### Art History M.F.A.

Upon entry to the art history program, a student will be pursuing a Master of Fine Arts degree. An advisor in the area will be assigned in the first quarter, and by the end of the fifth quarter of full-time study, two thesis proposals will be submitted to the student's thesis committee members, leading to the completion of a 90 credit-hour degree.

Credit-Hour Requirements Summary:

- 48 art history area
- 27 directed electives
- 75 minimum course credits
- 15 thesis credits

#### 90 TOTAL

Directed electives are selected in consultation with the faculty. Proof of reading competency in French, German, or another language approved by the faculty is required. Standard language examinations or the equivalent of one vear's coursework without credit may be used. The language requirement should be completed by the end of the sixth quarter of full-time study. The program concludes with the submission of thesis (approved by the advisor) that demonstrates scholarly research and a final review or oral defense of the thesis directed by the student's review committee.

#### Studio/Art History M.F.A.

To be recommended as a degree candidate, the student must submit both studio and art history work for the review by faculty committees at the end of the fourth quarter of full-time study. All studio reviews (as listed under the studio degree), apply to this double concentration, too. The program concludes with the thesis exhibition, final thesis review, and approved formal

art history paper. The graduate program leading to the M.F.A. in studio/art history requires the completion of 90 credit-hours of coursework and 45 credit-hours of thesis, combining to satisfy 135 credit-hours overall.

#### Art Education M.A.

The graduate program leading to the Master of Arts in art education requires the completion of at least 50 credithours of graduate coursework and a thesis, approved by the student's advisor and thesis committee, that demonstrates scholarly ability. Teacher certification is not required for entry into the program; however, evidence of ability to complete and benefit from the program must be provided for admission.

Credit-Hour Requirements Summary:

- 24 art education area
- 4 studio
- 8 art history
- 8 directed electives

44 minimum course credits 6 thesis credits

#### 50 TOTAL

A scholarly thesis will be presented to the student's committee at the completion of the graduate coursework, and may be completed in one year on a full-time basis.

#### Admission

Admission to the graduate program in the School of Art requires a bachelor's degree, preferably in Fine Arts, from an accredited institution and a grade point average of at least 2.5. Studio applicants should complete both parts of the application process below; students interested in art history or art education need not submit a slide portfolio.

#### **Application Process**

- 1. An application form, fee, and two official transcripts from each post-secondary institution attended should be sent directly to:
  Office of Graduate Studies
  McKee House
  Ohio University
  Athens, OH 45701-2979
- 2. A portfolio submission is required for all students interested in applying to the following programs: ceramics,

painting, photography, printmaking, sculpture, studio/art history. A slide portfolio should be mailed along with a copy of the application form, three signed, sealed letters of recommendation, and copies of all transcripts to:
Assistant Director, Graduate Programs School of Art
528 Seigfred Hall
Ohio University
Athens, OH 45701-2979

The portfolio should consist of twenty 35mm color slides in an 8.5 x 11-inch clear plastic slide sheet and/or CD-Rom. Slides should be clearly marked with name, media, size, date executed, and (indication of top) orientation. They should be accompanied by a corresponding list that includes all information on the slides. A self-addressed, stamped envelope must be included for the return of application materials. Slides of accepted students will be retained and kept on file in the School of Art office.

Applicants for studio/art history must indicate on the application form the specific studio area in which the concentration will occur, such as ceramics, painting, etc.

Applicants who plan to concentrate in art education, art history, or studio/art history must submit a term paper or some other example of scholarly writing and research skills to the Assistant Director, Graduate Programs in the School of Art at the above address.

The deadline for applications to all programs in the School of Art is February 1. No late applications will be accepted for consideration of funding for the following academic year. Applications for other quarters are on a case-by-case basis; contact the department chairperson for more information.

#### **Financial Aid**

The School of Art awards approximately 35 Teaching Assistantships and 51 quarters of OGS scholarships each year. Selection is by competition and is based upon available openings and funding. Students who receive funding must maintain a full-time schedule and a 3.0 g.p.a. to retain support. Both first-year and continuing graduate students are eligible for

graduate appointments. To be considered for these awards, the applicant should mark the appropriate items on the application for graduate admission.

Other financial aid information (such as Federal Perkins Loans and Federal Work Study) may be obtained from the Office of Student Financial Aid and Scholarships, Chubb Hall, Ohio University, Athens, OH, 45701-2979.

#### **Contact**

http://www.ohio.edu/art/

Assistant Director, Graduate Programs School of Art 528 Seigfred Hall Ohio University Athens, OH 45701-2979

1.800.766.8278

#### Courses

#### Art Education (ART)

560 Studies in Art Education (4)
Study of philosophical and curricular movements in art education.

561 Research in Art Education (4) Introduction to qualitative and studio research methodologies.

S62 Research Methods in Art Education (4)
Research methods appropriate to art education;
examination of research in the discipline;
planning individual research projects; and
preparation for thesis.

## 563 Proseminar in Art Education/Current Issues in Art Education (4)

Study of contemporary issues and developments in art and art education; and development and completion of a professional portfolio. Max. 12 hours.

564 Museum and Community Art Education (4) Series of two courses that expands the contexts for art education professionals. Students develop interactive art programs for elementary, middle, and high schools through collaboration with galleries, museums, and community art exhibitions. Max. 8 hours.

692 Art Education Thesis (6–12) Prereq: 30 hrs graduate coursework.

#### Art History (AH)

520 Greek Art (4) Art of ancient Greece.

521 Roman Art (4) Art of ancient Rome.

\$22 Medieval Art (4)

Art of Europe from age of Constantine to art of Giotto.

**522A** Medieval Art: Special Topics Seminar (4) Focused topics on Medieval Art. A single artist, issue, or period is emphasized.

523 Italian Renaissance Art (4) Art of 15th-century Italy.

523A Italian Renaissance Art: Special Topics (4) Focused topics on Italian Renaissance art (c.1300–1550). An artist, school, period, and/or issue will be examined.

**524** Northern Renaissance Art (4) Art of northern Europe in 15th and 16th centuries.

525 Art of High Renaissance and Mannerism (4) Art of 16th-century Italy.

526 Baroque and Rococo Art (4) Art of 17th- and 18th-century Europe.

**S27** Art of 19th Century (4) European art from French Revolution to 1900.

527A Modern Art: Special Topics Seminar (4) Focused on European and American art (c. 1800-194S). A single issue, period, or artist is emphasized.

Specific movements and artists since 1900.

529 The Arts of the United States (4) Art in the U.S. from the Colonial period.

530 The Arts of Asia (4) Art of India, China, and Japan.

530A Arts of Asia: Special Topics Seminar (4)
Focused topics on the art of the ancient Far East.
A single issue, tradition, or culture is emphasized.

531 Pre-Columbian Art (4)
Preconquest art of Mexico, Central America, and
South America.

532 West African Art (4)

The visual art traditions, including sculpture, ceramics, textiles, and architecture of the forest and savanna zones of West Africa.

**532A** African Art: Special Topics Seminar (4) Focused topics on African art. A single issue, tradition, or culture is emphasized.

533 Central African Art (4)

The visual art traditions, including sculpture, ceramics, textiles, and architecture of the forest and savanna zones of central Africa.

534 Ancient Near Eastern Art (4)
Art of Egypt, Mesopotamia, Assyria, and Babylonia.

535 Art Since 1945 (4) Issues and movements in the arts since WWII.

536 Modernist Theory and Criticism (4)
An overview of the major theoretical and critical
positions on the visual arts in modernism,
especially from the late 19th century to the late
1970s. Topics include formalism, expressionisn,
and the relationship of art to nature and society.

537 History of Photography (4)
History and development of photography as art,
science, and industry. Leading photographers and
their contributions to development of the art.

538 Contemporary Art Theory and Criticism (4) An overview of the major theoretical and critical positions on the visual arts and contemporary culture. Topics include semiotics, poststructuralism, feminism, simulation, and theories of cultural and ethnic difference.

538A Contemporary Art Theory and Criticism
Special Topics in Seminar (4)

Featured topics on contemporary theory. A specific theory or set of critical issues will be examined.

540 Selected Topics in Art History (4)
Selected problems in the visual arts, such as interdisciplinary topics, cross-cultural studies, thematic treatments, technical investigations, and approaches to material. Content may vary with each offering of this course.

541 Early Chinese Art (4)

This course will explore the history of early Chinese painting from the Third Century b.c.e. until the establishment of the Ming Dynasty in 1638.

S42 Art of 20th Century China (4)
This course will explore the ways Chinese artists of the 20th Century have defined modernity within the context of Chinese history and art tradition.

S43 Japanese Buddhist Art and Architecture (4) This course will explore the development of Buddhist art and architecture in Japan from the Sixth Century through the 16th Century.

S47 Later Chinese Painting (4) This course will examine the social and cultural issues in Chinese painting from 1638 to 1895.

S48 Japanese Painting and Prints (4)
This course will explore the major trends in
Japanese pictorial art from the Seventh Century
to the early 20th Century.

550 Art History Research and Publication (3) Prereq: AH grad student. Intensive study of projects of limited scope.

560 Art Historiography (4)

700 Art History Thesis (1-15)

792 Independent Study—Projects (1-6)

793 Independent Projects—Reading (1-3)

#### Ceramics (ART)

515 Ceramics (3–6)

Development of skills and exploration of processes leading toward personal expression.

516 Ceramics (3–6) Prereg: 515.

610 Ceramics Seminar (3)

Lectures, discussions, field trips, slide and film presentations dealing with contemporary issues in ceramic art.

615 Ceramics (3-6)

Development of concepts leading toward studio thesis.

616 Ceramics (3–6) Prereq: 615.

715 Ceramics (3-6) Prereq: 616.

716 Ceramics (3–6) Prereq: 715.

718 Ceramics Written Thesis (6)

719 Ceramics Studio Thesis (5-18)

#### Painting (ART)

505 Painting (3-6)

506 Painting (3–6) Prereq: 505.

518A Drawing (3-6)

519A Drawing (3–6) Prereq: 518.

600 Painting Seminar (3)

Discussions, readings, presentations, and papers related to developments in recent painting.

605 Painting (3–6) Prereq: 506. 606 Painting (3–6) Prereq: 605.

705 Painting (3–6) Prereq: 606.

706 Painting (3-6) Prereq: 705.

708 Painting Written Thesis (6)

709 Painting Studio Thesis (5-18)

#### Photography (ART)

591A Photographic Processes (5-10)

591B Photographic Processes (5-15) Prereq: S91A

591C Photographic Processes (5-15)

690 Photographic Seminar (3)
Readings, research, presentations, papers,
discussions, field trips, and lectures concerning
specific issues of interest to artists working with
photographic media.

691A Graduate Study in Photographic Arts (5-10)

6918 Graduate Study in Photographic Arts (S-10) Prereq: 691A

691C Graduate Study in Photographic Arts (5–10) Prereq: 691B

791A Advanced Study in Photographic Arts (5–10)

7918 Advanced Study in Photographic Arts (5–10)

Prereq: 791A

791C Advanced Study in Photographic Arts (5–10) Prereq: 7918

798 Photography Written Thesis (6)

799 Photography Studio Thesis (5-18)

#### Printmaking (ART)

541 Printmaking (3-6)

542 Printmaking (3–6) Prereq: 541.

546 Art on Computers (4)

An exploration of the computer's capabilities and its potential to expand the artist's visual vocabulary.

640 Printmaking Seminar (3)

Discussions, readings, presentations, and papers on topics of specific interest and concern to printmakers.

641 Printmaking (3–6) Prereq: 542.

642 Printmaking (3–6) Prereq: 641.

741 Printmaking (3–6) Prereq: 642.

742 Printmaking (3–6) Prereq: 741.

748 Printmaking Written Thesis (2-6)

749 Printmaking Studio Thesis (5-18)

#### Sculpture (ART)

531 Sculpture (3-6)

532 Sculpture (3-6) Prereq: 531,

630 Sculpture Seminar (3)

Projects, research, and discussion of topics of specific interest and concern to sculptors. F; Y.

631 Sculpture (3-6) Prereg: 532.

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632 Sculpture (3-6) Prereq: 631.

731 Sculpture (3-6) Prereq: 632.

732 Sculpture (3–6) Prereg: 731.

738 Sculpture Written Thesis (2–6)

739 Sculpture Studio Thesis (5-18)

#### Inter-Area (ART)

**S00** Graduate Teaching Associates Seminar (3) Assists graduate teaching associates with practical and pedagogic support. Coursework investigates issues specific to teaching in studio.

601 Interdisciplinary Seminar (3)
Readings, discussions, and presentations exploring relationship between various visual arts disciplines. Y.

792 Independent Study—Projects (1–6) F, W, Sp, Su; Y.

793 Independent Study—Reading (1–3) F. W. Sp. Su; Y.

## School of Interdisciplinary Arts

http://www.ohio.edu/interarts/

The School of Interdisciplinary Arts at Ohio University offers a unique Interdisciplinary program of study in the arts. The Ph.D. program educates scholars who are grounded in a single discipline and able to view that area through the lens of other arts. The School also provides extensive course offerings at the undergraduate level that fulfill University general education requirements.

Interdisicplinary Arts is an exploration of interrelationships, interdependencies, and interactions among the arts. This approach employs various methodologies to examine one art form through the study of other crafts and other disciplines. Students and faculty cross disciplines to analyze the arts in such contexts as culture, history, theory, politics, religion, gender, ethnicity, and

economics. Advanced study of the arts should be based on strong knowledge of individual art forms, coupled with insight into how the arts interact and are interrelated. The ethos of interdisciplinarity is that understanding of art and culture is enhanced through these approaches. The goal is the balance and synthesis of the artist, the thinker, the citizen, the human being.

Interdisciplinary Arts students at Ohio University undertake a strong education in a primary discipline, with study in a secondary area, and engage in a series of interdisciplinary seminars. The goal is to approach one area from multiple perspectives. Students take courses from faculty across the College of Fine Arts, as well as in disciplines outside the fine arts. This doctoral program emphasizes a cultural education, which may serve as preparation for a variety of professional careers, especially college and university teaching.

The program is informed by the principle that artistic expression and humanistic scholarship are interdependent, complementary endeavors. In addition, the cultural and intellectual contexts in which the works become significant are critical to the understanding of the works themselves.

In the era of postmodernity, the boundaries between arts are becoming increasingly permeable, and today's scholars recognize that discipline-based research can be inadequate to illuminate arts of past eras. The School of Interdisciplinary Arts seeks to train scholars for the twenty-first century, who are grounded in the knowledge of a discipline and able to view the arts through the unique lens of interdisciplinary studies.

Full information regarding program requirements and procedures are available in the Graduate Handbook that is located on the school Web site. This handbook is also given to students upon enrollment.

#### Admission Requirements

Potential candidates must possess an M.A. or M.F.A. degree from a reputable American or international university (Master's degree work may be in a

historical-critical studies in one of the major art forms or may be in studio or performance fields. Master's degree work in any of the humanities, e.g., history, philosophy, modern languages is acceptable.) Students completing master's degrees from the Ohio University College of Fine Arts are encouraged to apply. The following materials also must be submitted:

- **1** Official transcripts of all previous degree/certificate work.
- **2** Three current letters of recommendation that address the candidate's academic achievement and potential.
- **3** Graduate Record Examination scores or Miller's Analogies Test scores are required.
- **4** A three-to-five page essay in which the applicant discusses reasons for selection of interdisciplinary work for a graduate degree and a statement of philosophical and practical expectations from such study.
- **5** A sample research paper from the applicant's previous course work.
- **6** Graduate Admission application forms.
- International students must submit evidence of proficiency in the English language. TOEFL scores in the 480–550 range are required.
- International students applying for a Graduate Teaching Assistantship must submit their scores on the Test of Spoken English (TSE). Students must score 6 on the TSE to be offered a teaching stipend.
- International students must submit an affidavit of financial support as evidence of financial responsibility.
- All applicants must follow the Admission Policies and Procedures specified in the *Ohio University Graduate Catalog*.
- A personal interview is recommended.

The deadline for admission application is March 15. Admission is granted for fall quarter entry only. Students will be notified of the admission decision within a month of the application deadline. Notification of stipend/scholarship awards is approximately May 1.

#### **Program Requirements**

The program requirements are based on the following principles:

- **1** Students study with a wide variety of professors.
- **2** Students have the opportunity to have regular elective choices of seminars throughout the College of Fine Arts and Ohio University.
- **3** Doctoral students in Interdisciplinary Arts are regularly in the classroom with other students who are engaged in graduate study of the arts.
- **4** Students gain a strong scholarly expertise in one area and a secondary scholarly expertise in another area.
- 5 The program is imbued with the interdisciplinary nature of the degree. This begins with an introductory seminar in the first year. Once the student has demonstrated mastery of two areas, presumably at the end of the first year, students take an interdisciplinary Interdisciplinary Arts seminar each quarter. These seminars are team-taught by Interdisciplinary Arts faculty.
- **6** Students have the opportunity to study and engage in the practice of the arts in order to understand the crossover between theory/criticism/history and practice.
- 7 The education is project based, from the seminars to individual, independent research. Students learn how to conduct interdisciplinary research on a given project, with the goal of applying the techniques to further studies.
- **8** Scholarship is fostered at the graduate level. Students are expected to submit papers to scholarly conferences (with possible travel funding from the College of Fine Arts) and encouraged to submit articles for publication.

## Requirements for Ph.D. in Interdisciplinary Arts

#### **Course Requirements**

**Six** seminars in primary area (any area from film, art, music, or theater, with possible options in architecture)

Three of these seminars must be from outside Interdisciplinary Arts

**Four** seminars in secondary area (any other area from architecture, art, film, music, theater)

Two of these seminars must be from outside Interdisciplinary Arts

Aesthetics seminars (IART 741, IART 742, plus one theory/criticism seminar from the primary or secondary area).

Four Interdisciplinary Arts seminars

The above seminars should cover six different historical periods, in addition to one course in an area of non-western arts.

Three research/teaching skills courses

**Two** guided independent studies in primary area for qualifying examination

Taken in conjunction with undergraduate or graduate survey course

This requirement is waived upon completion of the qualifying examination in this area.

Three guided independent studies in secondary area for qualifying examination

Taken in conjunction with undergraduate or graduate survey course

This requirement is waived upon completion of the qualifying examination in this area.

**Two** performance/practice/studio courses

#### Language Requirement

Students are required to demonstrate reading knowledge of two foreign languages relevant to the student's program of study.

#### **Examinations**

- 1 Diagnostic exam: Upon enrollment, students choosing music as a primary or secondary area will take a diagnostic examination to aid in the advising process.
- 2 Qualifying exams:
- a The student should gain broad knowledge of the canons of two disciplines and will be tested through qualifying examinations.
- **b** Qualifying exam in a primary area: end of winter quarter of first year, or earlier (assuming student enters with master's degree or equivalent in this area).

Final date for completion of primary qualifying examination: end of spring quarter, year #1.

**c** Qualifying exam in secondary area: end of spring quarter of first year, or earlier.

Final date for completion of secondary qualifying examination: end of fall quarter, year #2.

All exams may be taken a maximum of twice.

**3** Comprehensive Examination: The goal of the comprehensive examination is to test the student on what he/she has learned during their period of coursework. This should include history, criticism, theory, analytical vocabulary, knowledge of the discipline and bibliography. The student takes the comprehensive examination during fall quarter of the third year of study.

#### Dissertation

The dissertation subject should be inherently interdisciplinary. The given thesis should be proven through the combined methodologies, subjects and/or theories of two or more arts, or discipline(s) outside the arts. The dissertation may focus on one art discipline and integrate another discipline or disciplines in or outside of the arts. These guidelines should be viewed as inclusionary rather than exclusionary.

#### **Residency Requirement**

Minimum residency requirements are stated in the *Ohio University Graduate Catalog*. It should be noted, however, that a minimum of two years is necessary for completion of all requirements.

#### Sample Program of Courses

Year #1	
Fall	cr.
Seminar area 1	4
Inter. Arts Seminar	4
Ind. St: Qual Exam 1	4
Ind. St: Qual Exam 2	4
Teach/Research	2
Winter	cr.
Seminar area 1	4
Studio or Elective	4
Ind St: Qual Exam 1	4
Ind St: Qual Exam 2	4
Teach/Research	2

Spring	cr.
Seminar area 1	4
Seminar area 2	4
Studio or Elective	4
Ind St: Qual Exam 2	4
Teach/Research	2
Year #2	
Fall	cr.
Seminar area 1	4
Seminar area 2	4
Inter. Arts Seminar	4
Aesthetics	4
Independent Study	2
Winter	cr.
Seminar area 1	4
Seminar area 2	4
Inter. Arts seminar	4
Aesthetics	4
Independent Study	2
Spring	cr.
Seminar area 1	4
Seminar area 2	4
Inter. Arts seminar	4
Aesthetics/Elective/Studio	4
Independent Study	2

## Interdisciplinary Arts Courses (IART)

520X Problems in Comparative Arts (The Fine Arts in Florence) (1–6)

Prereq: enrollment in Italy program. Artistic expression in Florentine life as it may be seen in examples of architecture, painting, sculpture, and music.

581 Individual Problems (1-6)

S81X Individual Problems (1–6) Prereq: perm; study abroad.

700 Teaching and Research Skills (2)
Prereq: CA graduate student. This course focuses
on the skills and techniques essential to teaching
and scholarship.

701 Music Theory Systems (4)
For nonmusician graduate students. Introduces musical theoretical systems.

702 Music Theory Systems (4)
Prereq: 701. For nonmusician graduate students.
Introduces musical theoretical systems.

703 Music Theory Systems (4)
Prereq: 702. For nonmusician graduate students.
Introduces musical theoretical systems.

711 Music in Antiquity and the Middle Ages (4) Cultural history of music to ca. 1410.

712 Music in the Renaissance (4) Cultural history of music, 1410–ca. 1600.

**713** Music in the Baroque Period (4) Cultural history of music ca. 1600–ca. 1730.

714 Music in the Classic Period (4) Cultural history of music ca. 1730–ca. 1825.

715 Music in the 19th Century (4) Cultural history of music in 19th century. 716 Music in the 20th Century (4) Cultural history of music in 20th century.

721 The Arts in Antiquity (4)
Artistic development between Minoan/Helladic cultures to advent of Constantine.

**722** Medieval Art (4)
Art of Europe from age of Constantine to art of Giotto.

724 Northern Renaissance Art (4)
Art of northern Europe in 15th and 16th centuries.

725 Italian Renaissance and Mannerist Art (4) Art and history of quattrocento, cinquecento Italy.

726 Baroque and Rococo Art (4) Art of 17th- and 18th-century Europe.

727 Art of 19th Century (4) European art from French Revolution to 1900.

728 Modern Art (4)
Specific movements and artists since 1900.

741 Art and Beauty in Antiquity and Middle Ages (4)
 A study of concepts in art, beauty, creativity, aesthetic function, and experience.

742 Art Theory and Criticism: Modernity (4)

743 Art and Society Now: Special Topics (4)

770 Greek Theater and Drama (4)
First in series of eight seminars covering theater
and drama of western world in depth from
prehistoric times to contemporary.

771 Roman and Medieval Theater (4)

772 Renaissance Theater and Drama (4)

773 Restoration and 18th-Century Theater (4)

774 Baroque European Theater (4)

775 19th-Century European Theater (4)

776 Contemporary Theater (4)

881 Individual Problems (1–15)

891 Seminar in Comparative Arts (4)

892X Individual Problems (4–15) Prereq: study abroad.

895 Dissertation (1–1S)
Dissertation as recommended by department.

## School of Dance

The School of Dance does not offer an advanced degree program. However, you may include the following graduate courses in an individual interdisciplinary program of study culminating in a master's degree arranged through the Office of Graduate Student Services. (See the Individual Interdisciplinary Programs section and the Comparative Arts listing in this section.)

530 Dance Movement Laboratory (1–5) Investigation of individual problems and capacities related to the production of movement. Explores the means to improve efficiency and expand qualitative range of the mover through application of specific somatic modalities. *D.* 

531 Analysis of Dance Movement (2) Explores skeletal alignment and deviation, muscular development and function, and mechanical efficiency in production of dance movement. Basic to course study is thorough understanding of principles of stability and motion as they relate to dance. Scott.

532 Dance Kinesiology Seminar (2)
Offers study and in-depth analysis of kinesiological principles, their application in dance class, and to training of dancers, Walchli.

578 Seminar in Dance History and Criticism (4) Development of Euro-American dance in the 20th century, with focus on contemporary dance through the present. Research projects. F; Y.

579 Seminar in Dance History and Criticism II (4) Tribal forms: survey of dance forms and their functions in societies including mythic rituals and dance-drama. Research projects. *Sp; A.* 

## 580 Seminar in Dance History and Criticism III (4)

Development of Euro-American dance from classic times through 20th-century ballet, with emphasis on Baroque, Romantic, and Diaghilev periods. Research projects. *Brooks; W; A.* 

690 Independent Study (1-10)

#### 694 Internship (1-6)

Course provides credit for internship experience. Internship allows individual to gain real experience in field of dance and related areas, e.g., arts administration, apprentice/performing or choreography, technical production. Bailin; F, W, Sp, Su; D.

## School of Film

http://www.ohio.edu/film/s\_pages/

The Ohio University School of Film is dedicated to providing an educational environment of creativity, diversity, and excellence in which talented, motivated, and disciplined students can examine and develop the art and crafts of the motion picture as an art form, as an educational tool, and as a dynamic cultural element in the 21st century.

The School of Film offers two graduate degree programs: the Master of Fine Arts (M.F.A.) and the Master of Arts in Film Studies (M.A.). The M.F.A. program is a three-year program of study for talented individuals. Students will study directing, screenwriting, producing, cinematography, editing, and motion picture sound with an in-depth exploration in film history, theory, and criticism. The M.F.A. is a terminal degree and is for students who wish to teach at the college or university level. The M.A. program is a two-year

program in film scholarship for students planning continued study at the doctoral level or teaching.

The M.F.A. and M.A. programs are designed to allow the entrance of talented students with no formal film training who have demonstrated extensive experience in another medium or academic discipline. While prior achievement in filmmaking, video, or film scholarship is not necessary, acceptance to graduate study in the school requires a cognate commitment to these areas of study.

Graduate study in the School of Film should not be perceived in terms of a vocational or trade school; technical knowledge and skills are offered as tools to achieve creative conceptual goals. Further, because the film discipline requires full integration and knowledge of related disciplines, all graduate study in film requires a minor area of study outside the school.

The degree programs are supported and augmented by the appointment of an Ohio Eminent Scholar to the faculty, the Athens International Film and Video Festival and OUStuff (the student film festival), visiting artists/teachers, and other aspects of the School and the College of Fine Arts.

#### M.F.A. Program

The M.F.A. program involves intensive coursework in film production and film scholarship. The program requires 135 hours of graduate study, including a minor area of study in a related discipline, a 15-credit hour second-year production project, and the completion of a creative thesis. You will determine the scope and nature of the thesis with your thesis advisor and the film faculty; a thesis can take the form of (a) a thesis film or films of any genre, (b) a thesis videotape or group of videotapes, or (c) a feature length screenplay or group of screenplays.

You are required to maintain a 3.0 average in all coursework. Your overall creative and scholastic performance is formally evaluated in three steps: advancement to candidacy, portfolio review, and thesis defense. Failure twice at any stage of the evaluation

process will result in denial of further enrollment in the M.F.A. program.

#### First Year Review

You are evaluated at the end of your third quarter of study. At that time, you are required to have completed 48 hours of coursework and must submit one completed 16mm answer print produced at Ohio University of graduate-level quality and a minimum of one research paper demonstrating graduate-level coursework, writing, and scholarship.

#### **Second Year Review**

After advancement to candidacy and the completion of a second year of fulltime study, you are required to submit a portfolio of creative work completed at Ohio University including a second-year film to the faculty for formal review.

#### **Thesis Defense**

After completion of the creative thesis, you must successfully defend your thesis before the thesis committee.

#### M.A. Program

The M.A. in film scholarship is a twoyear program, designed to prepare students for further study at the doctoral level. The program requires 75 credit hours and a written thesis.

Coursework for the program includes film theory and criticism, international film history, contemporary issues in international film, one quarter of film production, and additional courses in film aesthetics and analysis. The program requires completion of a minor area of study in a second language or in international studies for those who already have a second language. The minor area of study is selected in consultation with a faculty advisor.

Final degree requirements include a comprehensive written examination administered during the third quarter of enrollment, evaluated by members of the School of Film faculty. Failure twice at this stage of the evaluation

process will result in denial of further enrollment as an M.A. candidate.

After you have completed comprehensive examinations, consulted with your advisor, submitted a thesis prospectus to the film faculty, and selected a thesis committee, you begin your written thesis. After completing the thesis, you must complete an oral defense before the thesis committee.

#### Admission

Because certain core courses must be taken in sequence, admission to all graduate programs in the School of Film is restricted to fall enrollment.

To apply, you must demonstrate a minimum grade-point average of 3.0 for your undergraduate major and a bachelor's degree or its equivalent from an accredited institution. Your undergraduate degree may be in any discipline. Supporting documents required are (a) a transcript of all undergraduate work; (b) three letters of recommendation; (c) a formal application with fee; (d) a sample of your written work consisting of a paper or papers on any subject—such as a research paper, article, or critical analysis; (e) a 500-word personal essay on your goals in pursuing graduate study in film and the relationship of previous education and experience to these goals; and (f) for M.F.A. applicants only, examples of creative work such as a film, videotape, or portfolio of work from another medium. GRE scores are not required.

Send transcripts, formal application, and fees directly to the Office of Graduate Studies. Your application cannot be processed until the application fee has been received. Send all other materials to the director, School of Film, Ohio University, Lindley Hall, Athens OH 45701-2979. The normal deadline for receipt of applications is January 15.

A limited number of OGS stipends and graduate assistantships are available. While a majority of these awards are given to students who have passed their First Year Review, exceptional students may receive OGS or graduate assistantships during their first year on campus.

#### Film Courses (FILM)

#### 501 Film 5ymposium (1)

Current issues of film studies. Presentations by students, faculty, and guest speakers. F, W, Sp.

#### 521 International Film I (4)

Analysis of the relationship between film and culture, with emphasis on how cultural meanings influence film aesthetics and critical assessment of the medium. Examination of the work of such nations as Brazil, China, India, 5weden, and the United States, Weekly screenings, F.

#### 522 International Film II (4)

Development of a nation's or cultural region's filmmaking, with emphasis on the films of selfdefined identity groups such as Asian- or African-American and women's films. Weekly screenings. W.

#### 523 International Film III (4)

Aesthetics and uses of film and related technologies in the study of Western and non-Western peoples, with emphasis on ethnographic and documentary filmmaking. Weekly

#### 531 Film History I (4)

Study of the history of the motion picture. Emphasis on alternatives to the film canon and revisionist approaches to film history. Weekly screenings. F.

#### 532 Film History II (4)

History of international silent and sound documentary film. Weekly screenings. W.

#### 533 Film History JII (4)

History of international silent and sound experimental film. Weekly screenings. Sp.

538 Studies in Documentary Film (4) Development of naturalistic and polemic traditions, cinema verité, and personal documentary. Weekly screenings.

#### 541 Film Analysis (4)

Overview for screenwriters and directors of dramatic and filmic structure in contemporary narrative film. A lecture/screening format is used to study dramatic action, characterization, plot, and scene structure; students analyze motion pictures as well as scripts on which they

#### 542 Scriptwriting (4, max 12)

Introduction to craft of developing narrative screenplay. Workshop/tutorial approach to study of screenplay structure, format, dialogue, and theory, culminating in completed screenplay.

#### 543 Advanced Scriptwriting (4)

Prereq: 541 and 542. Seminar/tutorial approach to the study of advanced problems in writing the narrative screenplay.

#### 544 Media-Arts Management (4)

Administration, fiscal management, marketing/ promotion and media arts programming as applicable to arts management and nonart situations involving similar office/fiscal activities. May be repeated up to 3 times.

#### 551 Film Theory and Criticism I (4)

Prereq: 531. Examination of various approaches to film theory and criticism including formal aspects of cinema, tools for stylistic analysis, and ideological implications of film. Weekly screenings. F.

#### 552 Film Theory and Criticism II (4)

Prereq: 551. Examination of materialist approaches to film theory and criticism including works of Eisenstein, Arnheim, and Burch. Weekly screenings. W.

553 Film Theory and Criticism III (4) Prereq: 551. Topics in film theory and criticism including feminist perspectives, political cinema.

theatricality in film, structuralist and psychoanalytic approaches to film. Weekly screenings. Sp.

#### 561 Motion Picture Production I (5)

Prereq: major. Professional 16mm film production. Instruction in basic camera and lighting technique, elementary film structure, and in-camera editing, leading to production of individual silent film projects. E

#### 562 Motion Picture Production II (5)

Prereg. 561. Continuation of 561 introducing color emulsions and lighting techniques, leading to production of individual color, non-synch film project. W.

#### 563 Motion Picture Production III (5)

Prereq: 562. A continuation of 562 focusing on advanced sound motion picture production techniques, leading to an individual color synchsound film project. Sp.

#### 564 Video Art I (4)

The development of contemporary video and music video within the context of art. Emphasis on time, motion, and color.

#### 565 Video Art II (4)

Prereq: 564. A continued study of contemporary video and music video within the context of art with emphasis on recent technological innovations and their effect on expression.

#### 566 AVID Editing I (5)

Prereq: 561. Philosophical and practical blending of film and video with emphasis upon current industrial standards for film and video production.

#### 567 AVID Editing II (5) Continuation of 566.

571 Film Topics Seminar (1-5)

Investigation of selected motion picture topic announced before registration. Focus may be scholarly/critical, industry related, or an aspect of motion picture production or screenwriting. Topics and credit hours vary. F.

#### 572 Film Topics Seminar (1-5) See 571 for description, W.

573 Film Topics Seminar (1-5) See 571 for description. Sp.

#### 583 Film/Video Post-Production (2)

Practicum course in post-production for students with a film or video project requiring a final edit, conforming, and sound mix. F, W, Sp.

#### 633 International Film Seminar I (4) Advanced topics in film scholarship. Weekly

634 International Film Seminar II (4) Advanced topics in film scholarship. Weekly

#### 635 International Film 5eminar III (4)

Advanced topics in film scholarship. Weekly screenings, Sp.

#### 661 Cinematography (3-5)

Prereq: 563. Advanced study of aesthetics, techniques, and approaches to cinematography.

#### 662 Editing (3-5)

screenings. F.

screenings, W.

Prereg: 563. Advanced study of techniques and aesthetics of film and video editing.

#### 663 Film/Video Sound (3-5)

Prereq: 561. Advanced study of audible elements of film including dialogue, sound effects, music, dubbing, looping, and post-production mixing.

#### 664 Directing (3-S)

Prereq: 561. Examination of various theories and techniques of motion picture directing including script analysis and interpretation, directing actors for film and video, *mise-en-scene*, coverage, and continuity through practical directing exercises and lectures.

#### 665 Producing (4)

Prereq: \$63. Examination of function of producer in financing, organizing, scheduling, budgeting, managing, and securing distribution for a film.

#### 692 Independent Study (1–5)

Prereq: AWP. Advanced individual creative or scholarly work in film. May be repeated.

#### 691 Professionals Seminar (4)

Prereq: 563 or major. Presentation and discussion of thesis projects in progress. May be repeated.

790 Individual Production Problems (1–5)
Prereq: AWP. Individual production of motion picture. May be repeated.

#### 791 Individual Readings (1-5)

Prereq: AWP. Readings and reports on works related to motion pictures. Reading list selected in consultation with faculty member. May be repeated.

79SS Film Studio Thesis (1–1S) Prerea: AWP.

795W Film Written Thesis (1~15) Prereq: AWP.

## School of Music

http://www.ohio.edu/music/index.html

To begin a graduate program in music, you are required to have completed, with at least a 2.5 accumulative grade-point average, an undergraduate curriculum in music from an accredited institution offering an undergraduate degree equivalent to the requirements of the National Association of Schools of Music. Music education students not holding standard certification must earn Ohio certification.

All candidates should arrange a personal audition and interview. A taped audition is accepted only if a personal audition is difficult or impossible.

Applied majors (performance, performance-pedagogy) must demonstrate graduate-level performance proficiency. Performance-conducting majors must submit a videotape of their conducting and schedule a skill demonstration interview. Music education majors must submit a sample of their writing on a topic assigned by the music education faculty. Music therapy majors must present evidence of experience in working with children or adults with handicaps. Theory, history, and literature majors must submit a scholarly paper. Composition majors must submit scores, a statement of purpose, and, if possible, recorded tapes.

After admission has been granted, placement examinations are given to all entering graduate students during registration week of the first quarter of enrollment. You are required to take a proficiency test in theory and history and literature of music. The results of these placement tests are used in planning your course of study. Deficiencies in undergraduate preparation should be removed during the first year of graduate study.

You may apply for admission to a School of Music graduate program for any quarter. All application materials must be submitted 30 days prior to the quarter in which you plan to begin your graduate program. Typically, the school begins awarding financial aid on April 1 of each year for the next academic year; therefore, early application for financial aid is encouraged. School of Music-based financial aid is available to students admitted to degree programs.

#### Master of Music Programs

#### **General Requirements**

Programs leading to the Master of Music degree, requiring a minimum of 45 credit hours of graduate work, are offered in applied music (performance; performance/pedagogy emphasis—piano, organ, voice, strings, woodwinds, brass, percussion; and performance/conducting emphasischoral, orchestral, wind), theory, composition, music education, music history and literature, and music therapy. A thesis or its equivalent is required in all academic programs except music education, where a 48-quarter-hour (minimum) nonthesis option is available. Applied and music education majors are required to perform in an appropriate ensemble each quarter in residence and applied majors are required to present a public degree recital. In lieu of a thesis, majors in composition present compositions in a large form.

In addition to the 45 quarter hours required for the M.M., students in voice (performance) are required to demonstrate skill in German, French, and Italian diction. Students in music history are required to demonstrate reading ability in at least one foreign language. An oral examination is required of each candidate. See the School of Music Graduate Handbook for specific requirements.

#### **Music Education**

The M.M. in music education provides an opportunity to pursue advanced practical and theoretical studies in the field of music education. Although the focus of the program is upon preparation to be a more skillful teacher, many options are possible, including preparation for music administration and supervision. The degree program prepares students for permanent certification and doctoral study leading to college teaching. The coursework is divided equally among music education and other areas such as music theory, music history, jazz studies, and applied music (including conducting). Some candidates take related coursework in business. educational administration, theater, or comparative arts.

#### **Music Therapy**

The M.M. in music therapy provides an opportunity to pursue advanced studies in research, teaching, clinical, and administrative skills. Music therapy is an interdisciplinary field that requires a strong background in music, music therapy practices, and the behavioral sciences. Coursework is designed to improve understanding in these areas of study, promote advanced clinical and research skill, and allow specialization in a cognate area of applied music or nonmusic study. The curriculum consists of a minimum of 46 quarter hours in music therapy core courses; music theory, history, and/or composition; and music and nonmusic electives.

Students with a baccalaureate degree in music in an area other than music therapy may choose the combined equivalency master's program in music therapy and will concurrently complete deficiency courses toward the RMT (Registered Music Therapist) while electing some graduate-level courses toward the master's degree. If you lack substantial undergraduate music requirements, you may be admitted as a special student to the equivalency-only program, a nondegree offering that enables you to meet MT-BC registration requirements with the American Music Therapy Association. Eligible equivalency students may take a limited number of graduate courses during

equivalency study and, with permission, complete the graduate degree following a six-month internship (or equivalent) in music therapy. Additional nonmusic certification may be achieved during the course of study. AMTA Board Certification is obtained following successful completion of the national certification examination.

#### Performance

The M.M. in performance is designed for professionally oriented performers and studio and school music teachers who wish to pursue this curriculum as a terminal degree. It is also for those who wish to use it as a foundation for doctoral study. The goal is to prepare graduate students, both technically and intellectually, for professional careers as performers or conductors. Acceptance into the Master of Music in performance is by audition only.

## Performance: Pedagogy Emphasis (piano, string, voice, woodwind)

Within the area of performance, you may choose a Master of Music degree in performance with emphasis in pedagogy. Areas of concentration in this degree program are strings, woodwinds, voice, and piano. The goal of the pedagogy emphasis program is to prepare students for teaching in colleges, public schools, and private studios. A greater emphasis is given to pedagogy and pedagogical techniques, including teaching methods and materials, than in the traditional performance curriculum. Students in piano also receive group and private piano instruction. An audition is required on the major instrument for admission to these programs. It is advantageous to have previous experience on at least one other family instrument for students pursuing the degree in woodwinds and strings.

## Performance: Conducting Emphasis (choral, orchestral, wind)

The goal of the program in conducting is to further develop conducting skills needed for public school education, college teaching, or professional careers in conducting. It also prepares students for study at the doctoral level. Applicants must submit a videotape demonstrating conducting skills and, in a

personal interview, perform on their major instru-ment and demonstrate sightsinging, aural skills, and keyboard facility.

## Theory, Composition, and History and Literature

The M.M. is offered in music theory, composition, and music history and literature. Although each degree program requires a minimum of 45 quarter hours of graduate work, a variety of course offerings enables you to design a program that suits your professional needs.

The M.M. in music theory and the M.M. in music history and literature require 45 credit hours and a written thesis. In addition, students in music history are required to demonstrate reading ability in at least one foreign language. The M.M. in composition requires a large-scale composition in lieu of the thesis. Students applying for entrance into the Master of Music program in music theory or music history should submit an original scholarly paper on any topic within the discipline of the proposed major field of study.

#### **Music Performance Certificate**

The music performance certificate program allows graduate students who want to pursue careers in performance to engage in intensive study and performance. It is designed to prepare students for auditions for orchestra, opera, and music theater positions where a master's degree is not needed.

The certificate program consists of 30 credit hours, with 20 credit hours of performance courses and 10 credit hours of electives from within the existing graduate music degree courses in consultation with the certificate program advisor. The certificate program should normally be completed in one year and not more than two years.

Application procedures, admission criteria, and performance standards are the same as those for the Master of Music degree. All application materials must be received by June 1 for fall quarter, November 1 for winter quarter, and February 1 for spring quarter. Applicants may be in an advanced degree program elsewhere in the University or apply as a nondegree

student. Students may not pursue the performance certificate in conjunction with the Master of Music degree.

#### Music Courses (MUS)

#### **History and Literature**

- 521 History of Musical Styles I (3) History of music with survey of music literature to 1600.
- 522 History of Musical 5tyles II (3) History of music with survey of music literature from 1600 to 1750.
- 523 History of Musical 5tyles III (3) History of music with survey of music literature from 1750 to present.
- 524 Literature (3)

Literature of (A) choral music, (B) piano music, (C) chamber music, (D) orchestral music, (E) organ music, (F) opera music, (I) orchestral instruments, (L) band music. A.

- 527 Folk Music in the United States (3) Introduction to selected types of folk music in U.S. Scholten; Sp; Y.
- 528 Jazz History (3)
  Study of the African roots of jazz. Overview of solo and ensemble styles, with emphasis on blues, New Orleans, Chicago, swing, bop, cool, and free jazz to 1970. Wetzel; W; Y.
- 531 Ancient and Medieval Music (4) Music as artistic and theoretical expression of antiquity and Middle Ages; history of musical styles to 1410. A.
- 532 Music of the Renaissance (4) Musical styles and genera from Dunstable to Palestrina (ca. 1450–1600). *A.*
- S33 Music of the Baroque Period (4) Music of age of concertato and basso continuo, musical styles, and genera from Monteverdi to J. S. Bach (ca. 1600–1750). A.
- 534 Music of the Classic Period (4) Eighteenth century classicism for the Mannheim School through early Beethoven. A.
- 535 Music of the 19th Century (4) Music as artistic expression of 19th-century romanticism. A.
- 536 Contemporary Music (4) Music as artistic expression of our time. Various styles since ca. 1900. *A.*
- 537 Analysis of Music Notation (3) Gregorian and Medieval modal notation. *F; D.*
- 538 Analysis of Music Notation (3) Prereq: 537. Franconian and Ars Nova notation systems. *W*; *D*.
- S39 Analysis of Music Notation (3) Prereq: 538. Continuation of S38. Sp; D.
- 620 Seminar in Theory and Music History and Literature (3, max 9) Individual studies of problems in music history and theory. Methods of music research and use

#### of music bibliography. Wetzel; F; Y.

600 Independent Study (1–15) F. W. Sp., Su; Y.

Independent Study

695 Thesis (as recommended by dept) (1–6) Y.

#### **Music Education**

#### 562L Teaching Instrumental Music in the Elementary and Middle 5chool-Laboratory 8and (1)

To prepare the prospective instrumental music educator for competence and adequacy in executing an ensemble music rehearsal at the elementary/middle school level. Items covered include conducting, personnel, and score preparation.

563 Instrumental Techniques and Materials (4) Advanced techniques for high school and college instrumental groups. Literature and materials. Sp; Y.

564 Marching Band Techniques (3)
Techniques for preparation of high school and college marching band performance. Young; Sp; Y.

565 Choral Techniques and Materials (4) Advanced techniques for high school and college vocal groups. Literature and materials. *Jarjisian; Sp; Y.* 

## 566 Contemporary Elementary Music Education (4)

Advanced course in techniques and materials for elementary music teaching such as Orff and Kodaly. Scholten; F; Y.

566A Introduction to Orff Schulwerk (3) Introduction to music, materials, instruments, and pedagogy used in Orff teaching. Scholten; W; A.

568 General Music in Junior High (4)
Advanced course in techniques and materials for junior music teaching such as team teaching, learning stations, and humanities. M. Butler; W; Y.

576 Workshops and Institutes (1–4)
(A) music clinic workshop, (8) elementary music workshop, (C) chamber music institute. May be repeated for credit, but credit may be applied to degree electives only once for each workshop. D.

**5B1** Psychological Foundations of Music (3) Basic study of acoustics, ear, and hearing. Psychological, sociological, and physiological processes involved in musical behavior. *Codding: F; Y.* 

#### 590 Graduate Seminar: Teaching Music in Higher Education (1)

Assists the graduate teaching assistant— especially one with little or no prior teaching background—in making a smooth transition into his or her teaching duties at the Ohio University School of Music. Butler, Reilly; F; Y.

## 670 Contemporary Trends in Music Education (4)

Contemporary topics in music education, including national trends and challenges in the field. The course involves an investigation of the current practices in music education and the implementation of these in the public schools.

671 Advanced Topics in Music Education (4) Various topics in music education (including various methods of measuring musical aptitude and achievement) and study of experimental research methodology. W; Y.

672 Advanced Topics in Music Education (4) History and philosophy of American music education. Scholten; Sp; Y.

## 675 Introduction to Graduate Studies in Music Education (3)

Introduction to graduate study and research methods in music education. Scholten; F; Y.

#### 677 Organization and Administration of School Music (3)

Administration and supervision of school music programs. Role of supervisor, consultant, director, or coordinator of music in public schools. Personnel, materials and equipment, finance, curriculum, in-service training, and community-school relationships. Sp; Y.

#### Music Therapy

580 Advanced Music Therapy Practicum (3) Field experience with various clinical populations; supervision and leadership in field experience. F, W, Sp; Y.

#### 5B3 Research in Music Therapy and Psychology of Music (3)

Introduction to graduate study and research, extensive review of psychology of music and music therapy literature from a research perspective, experience with on-campus research, research analysis and design including writing a research paper suitable for presentation or publication. *E.* 

584 Clinical Practice in Music Therapy (3)
Review and analysis of music therapy techniques with various populations and assessment of their effectiveness; design and implementation of music therapy programs for various populations (alternatives and strategies); assessment with various populations; communication across various clinical disciplines in various settings.

585 Seminar in Music Therapy (3)
Current topics in music therapy, including national trends and problems in the field; administrative concerns in developing and enhancing music therapy programs; leadership in music therapy, including skills and strategies for effecting change at various levels; legislative activity and organizational activity. Sp.

694 Professional/Clinical Project (4)
Original, professional, or clinical demonstration
project resulting in a written paper suitable for
presentation or publication at a professional
meeting or in a professional journal. Sp.

#### 695 Thesis (4)

Original experimental research investigation suitable for presentation at research session of professional conference and/or publication in a research-oriented journal. *Sp.* 

#### Performance

540 Voice (1–6) Prereq: perm. *F, W, Sp; Y.* 

**541** Piano (1~6) Prereq: perm. *F, W, Sp; Y.* 

542 Harpsichord (1–6) Prereq: perm. F, W, Sp; Y.

**542A-D** Stringed Instruments (1-6) Prereq: perm. (a) violin, (b) viola, (c) violoncello, (d) double bass. *F, W, Sp; Y.* 

543A-E Woodwind Instruments (1-6)
Prereq: perm. (a) flute, (b) oboe, (c) clarinet, (d) bassoon, (e) saxophone. F, W, Sp; Y.

544 A-E Brass Instruments (1-6)
Prereq: perm. (a) trumpet, (b) horn, (c) trombone, (d) euphonium, (e) tuba. F, W, Sp; Y.

545 Percussion Instruments (1–6) Prereq: perm. Remonko; F, W, Sp; Y.

546 Organ (1–6) Prereq: perm. F, W, Sp; Y.

550 Accompanying (1, max 3)
8asic problems in accompanying singers and instrumentalists—rehearsal techniques, ensemble, pedaling, balance, etc. May be repeated. W, Sp; Y.

551A Marching Band (2) Prereq: audition. Suk; F; Y.

551B Wind Ensemble (2) Prereq: audition. Climer; Y.

551C University Band (1) Prereq: audition. Suk; Y.

551D Varsity Band (1) Suk: W: Y.

551£ Concert Band (1)
Prereq: audition, Climer: Y.

552A Symphony Orchestra (2) Prereq: audition. Y.

552B Chamber Orchestra (1) Prereq: audition. Y.

553A University Singers (2) Prereq: audition. Jarjisian; Y.

553B Choral Union (1) Prereq: audition. *Jarjisian; Y.* 

553C Opera Theater (1–4) Prereq: audition. Y.

553D The Singing Men of Ohio (1) Prereq: audition. Y.

553E Women's Chorale (1) Prereq: audition. Y.

554 Chamber Music (1)

Prereq: perm. (A) string; (B) woodwind; (C) brass; (D) percussion; (E) contemporary; (F) piano; (G) vocal. Y.

555A Jazz Ensemble (1) Prereq: audition. James; Y.

555B Percussion Ensemble (1) Prereq: audition. *Braun; Y.* 

555C Trombone Choir (1) Prereq: perm. Y.

557 Solo Repertoire (1)

Prereq: perm. Representative selections from standard and 20th-century repertory; problems of technique, interpretation, style, accompaniment, and ensemble. (A) string instruments; (B) woodwind instruments; (C) brass instruments; (D) vocal; (E) piano; (F) percussion.

557G Early Keyboard Repertoire, 1600-1750 (2) A comprehensive study of the keyboard repertoire from 1600-1750, including major works of Baroque composers. Barte; F; A.

**557K** Classic and Romantic Piano Repertoire (2) A comprehensive study of the keyboard repertoire from 1750-1900, including major works of classical and Romantic composers. *Syracuse; W; A.* 

557L Twentieth Century Piano Repertoire (2) Twentieth-century piano repertoire beginning with works from the Impressionistic Period and including major works of composers to the present. Henry; Sp; A.

558 Pedagogy (2)

Methods and materials of teaching fundamentals of instruments. Lecture, class performance, teaching demonstration, and library research. (A) string instruments; (B) woodwind instruments; (C) brass instruments; (D) vocal; (E) class piano; (F) percussion.

55BG,H,I Piano Pedagogy (2)

Practical course aimed at providing creative teaching strategies for piano teacher. Teaching philosophies, objectives, and procedures discussed and applied to group, class, and private piano instruction. Includes teaching techniques for working with students of all ages and levels. May be repeated. F, W, Sp; Y.

558J Vocal Pedagogy Resource Survey (2) Prereq: 558D. Overview of the learning process and pedagogical teaching styles. 20th-century materials and resources available in the field of vocal pedagogy are evaluated. M. Stephens; Y.

559A Advanced Instrumental Conducting (3) Prereq: perm. Advanced reading and conducting of large instrumental works. *F; Y.* 

559B Advanced Choral Conducting (3)

Prereq: perm. Advanced reading and conducting of large choral works. Standard and new works for public school and college groups. *Sp; Y.* 

559C Applied Conducting (4)

Prereq: perm. Select, private instruction at the advanced level. Emphasis placed on refining the individual student's conducting ability and musicianship. Gestural study, score study, and score reading are part of the course. Repertoire for degree recitals provide the primary focus for study. Climer, Jarjisian; Y.

570 Practicum in Music (1–2) Prereg: perm.

#### 572 Advanced Group Instruction in Functional Piano (2)

Prereq: piano classification 243. For pianists, emphasizing development of keyboard skills, harmonizing, transposing, sight reading, etc., that students will encounter as piano teachers, music educators, or music therapists. May be repeated. Sp; Y.

575B Italian Diction (1) Prereq: perm.

575C German Diction (1)

Prereq: perm.

575D French Diction (1) Prereq: perm.

577A Jazz Improvization I (2)

Learning and applying through improvization of the Ionian, Dorian, and Mixolydian modes, the ii-V7-I progression, and culminating with a final project utilizing the song form. Bastin; W; Y.

577B Jazz Improvization II (2)

Learning and applying through improvization the Whole Tone, Diminished and Blues scales, the Aeolian and Locrian modes, the ii-V7-I progression, and culminating with a final project utilizing Blues form. Bastin; Sp; Y.

579 Performance Preparation (2)

A practical course aimed at assisting students in developing strategies for preparing themselves physically and psychologically to achieve their maximum performance potential. Berenson.

697 Recital (1-2)

Prereq: perm. Full-length public recital. A recording of the degree recital will be filed in library. F, W, Sp; Y.

#### **Theory and Composition**

500 Introduction to Music Theory (3)

Prereq: nonmusic major. Introduction to music theory: pitch and rhythmic notation and chords. Y.

502A Styles I (3)

Analysis of Medieval and Renaissance music. F; A.

502B 5tyles II (3)

Analysis of post-Romantic music. W; A.

502C Styles III (3)

Analysis of 20th-century music. Sp; A.

503A Theory Pedagogy I (3)

Designed to meet needs of students who plan to teach theory at college level. Current materials and pedagogical approaches surveyed.

503B Theory Pedagogy II (3)

Prereq: 503A. Continuation of 503A. See 503A for description. *D*.

504A Analytical Techniques of Tonal Music I (3) A survey of techiniques employed in the analysis of music of the tonal repertory. A variety of analytical tools will be employed to examine the rhythmic, melodic, harmonic, formal, and textural structures of a wide variety of tonal music. *Reilly; F; Y.* 

504B Analytical Techniques of Tonal Music II (3) Continuation of MU5 504A. Reilly: W: Y:

504C Techniques of Atonal Music (3)

A survey of the analytical techniques employed in the analysis of atonal music; emphasis will be placed on the use of extensions of twelve-tone and set theory as applied to this repertory. *Reilly; Sp; Y.* 

505A 'Jazz Theory I (3)

Prereq: keyboard. Harmonic vocabulary, notational systems, chord progressions. Structures, and techniques in traditional jazz.

505B Jazz Theory II (3) Continuation of 505A. D.

507A Counterpoint I (3)

16th-century counterpoint: practices and styles; Lassus and Palestrina. *F; A*.

507B Counterpoint II (3)

18th-century counterpoint: invention, canon, fugue. W; A.

507C Counterpoint III (3)

Prereq: 507B. Continuation of 507B.

50B Composition, Nonmajor (3)

Prereq: non-composition major, perm. Phillips; Y.

509 Composition (3)

Prereq: composition major. Phillips; Y.

510B Electronic Music Composition (3)

Prereq: composition major. Instruction in the issues, aesthetics, and techniques of classical electronic music composition. *Phillips; F.* 

513 Introduction: Electronic Music (2) Introduction to electronic music covering basic concepts and providing a broad overview of current practices and trends on applying technology to musical ends. *F.* 

514A Advanced Orchestration (2)

Problems in scoring original works for modern symphony orchestra. Satisfactory scores performed by Ohio University Symphony Orchestra. *Phillips; D.* 

514B Advanced Orchestration (2)
Prereq: 514A. Continuation of 514A. Phillips; D.

514C Advanced Orchestration (2)
Prereq: 514B. Continuation of 514B. Phillips; D.

515 Microcomputer Applications in Music Production (3)

Basic concepts of digital FM synthesis and MIDI sequencing. Brief introduction to the use of microcomputers in music printing and other systems commonly used for electronic music production. *Phillips; W, Sp.* 

516 Project in Electronic Music (3)

Prereq: 515. Techniques of studio operation and maintenance, multitrack recording, tape editing, and mixing as they apply to electronic music. *Phillips; F.* 

516A Advanced Projects in Electronic Music (3)

Prereq: 516, approved project proposal. A project proposal must be submitted to and approved by the instructor prior to enrolling in this course. An electronic music composition will be produced for public performance. *Phillips; W.* 

516B Advanced Recording Studio Techniques (4) Prereq: 516. Instruction in operating a 16-track recording studio. Topics include advanced miking techniques, sound processing, mixing, and 5MPTE time code synchronization on a 16-track recorder. *Phillips*; *Sp.* 

517 Advanced Digital Synthesis (4)

Prereq: 515. Concepts of digital sound synthesis primarily using the Synclavier system. Topics include advanced FM synthesis, additive synthesis,

sampling, sequencing, and SMPTE time code synchronization on the Synclavier. *Phillips; W.* 

#### 517A Advanced Digital Synthesis and Multitrack Projects (4)

Prereq: 517, approved project proposal. A project proposal must be submitted and approved by the instructor prior to enrolling in this course. Supervision and guidance for working on creative electronic projects using the Synclavier and the 16-track recording studio. *Phillips; F, W, Sp.* 

610 Seminar in Music Theory (2)

Topics in music theory, including but not limited to issues in analysis, the history of music theory, cognition and perception, aesthetics as pertaining to theory, the music of individual composers, pedagogy, etc. Specific topics will be announced prior to each quarter the course is taught. Reilly; D.

## School of Theater

http://www.ohio.edu/theater/index.html

The School of Theater offers programs leading to the Master of Fine Arts and Master of Arts degrees. To apply, you must have earned a baccalaureate degree from an accredited college or university and be able to demonstrate motivation and talent for the program of your choice. In addition, you should present a background of training that correlates with your professional goals. For unconditional admission, you must have a satisfactory academic record with strong indications of success in your chosen area and sufficient preparation to qualify for graduate courses to be included in the program. Any deficiencies must be made up by taking appropriate courses in addition to normal requirements.

Applicants for admission to one of the professional M.F.A. programs must demonstrate qualification by audition, submission of portfolio, interview, or other appropriate means before final approval is granted (see below). This requirement is in addition to the basic admission standards for entrance into the graduate program of the School of Theater.

It is expected that you will have a firm grounding in theater history and dramatic literature, as well as demonstrable proficiency in fundamental production techniques, or that these areas will be included in your graduate program.

Throughout the program, you are closely observed and counseled by the faculty. You are expected to show consistent progress toward improvement of those skills that the faculty

deems necessary for entry into the profession. At the end of every quarter in residence, and in some programs also at midterm of each quarter in the initial year, a thorough evaluation is made. The faculty discuss with you particular areas of strength and weakness in your performance and how they may affect your professional potential.

If, in the judgment of the faculty, you fail to meet professional standards or to show improvement in necessary skills, you are placed on program probation for the following quarter. Normally this action occurs at the end of a quarter, and the probation is for the following quarter. However you may be placed on program probation at any time if the faculty deems it necessary. Written notice of this decision is provided, along with an explanation of the academic or artistic reasons for the decision. You are expected to make improvement immediately in the indicated areas.

At the end of the period of program probation, the area faculty, in consultation with the director of the School of Theater, takes one of three actions:

- **1** Removal of program probation; recommendation for continuation in the program.
- **2** Continued program probation for an additional quarter.
- 3 Denial of further enrollment.

If you are placed on program probation in the first five weeks of a quarter, the period of probation may extend until the end of that quarter. If you are placed on probation after the first five weeks of the quarter, the period of probation may extend until the end of the following quarter.

In no case will program probation continue for more than three consecutive quarters.

Students in the Professional Actor Training Program, the Professional Director Training Program, The Professional Playwriting Program, and the Production Design and Technology Program must begin their program of study in the fall quarter. Application materials for these programs must be received by April 1. Students in the

other M.E.A. programs are encouraged to begin their program in the fall quarter and should observe the April 1 application deadline. An M.A. degree candidate may apply for admission for any quarter.

Applicants seeking financial aid in the form of OGS stipends or graduate assistantships for the following academic year should submit application materials to the School of Theater by March 1. If you wish to apply for financial aid in the form of work study and/or loans, contact the Office of Student Financial Aid and Scholarships. (See the Financial Aid section.)

Graduate candidates are required to participate each quarter in the production activities of the school as a supplement to and as an extension of their academic work. In addition, all graduate candidates are required to enroll for Lunchbag Theater Seminar each quarter of residence.

The production program of the school is conducted in two adjoining buildings on the Athens campus. The first is Kantner Hall, housing a comfortable and well-equipped proscenium theater; four small studio-classroom theaters; scenery, props, and costume laboratories; and related facilities. A second mainstage theater, incorporating a thrust stage and capable of modification for use in various theatrical forms, is located in the Radio-Television Communication Building next door. Significant repertory production opportunities are available through the University's Monomoy Theater on Cape Cod (Chatham, Massachusetts).

Visiting artists from the professional theater are brought to the campus in all areas of the school to augment the teaching of the faculty. Full-term residencies, shorter-term (two or more weeks) residencies, master classes, and audition opportunities with theater professionals are supported by visiting artist funds. Recent visiting artists have included prominent actors, directors, designers, playwrights, administrators, and teachers from England and Europe, as well as the North American commercial and LORT theaters.

## M.A. in Theater History and Criticism

The M.A. in theater history and criticism is a one-year program requiring 45 credit hours and a minimum of three quarters of residency. You may choose either to write a thesis or to take a comprehensive examination on all coursework. If you wish to pursue the thesis program in place of the comprehensive examination program, an additional quarter of residency is expected. A quarter of internship with a professional theater as a dramaturg or literary advisor may substitute for the comprehensive examination or thesis.

The purpose of the degree is to prepare students for scholarship, research or new play development, whether associated with an academic institution or a professional theater. In the context of a professionally oriented School of Theater, students survey theater history and criticism, use current research methodologies, and study specific areas in depth. Students are required to engage in independent research and to convey their ideas orally and in writing. The degree is an excellent basis for introductory teaching in higher education, work as a dramaturg, or further study toward a terminal degree in theater.

This program is intended for a number of different kinds of students. Those interested in dramaturgy are able to apply their coursework, which also includes playwriting and directing, to School of Theater productions. An internship at a professional theater is especially valuable in this case.

The program also is for students who want the first graduate degree in preparation for a terminal degree, whether M.F.A. or Ph.D. The academic rigor and broad scope of this degree can be a valuable testing ground for students to determine their subsequent educational goals.

Finally, this degree is for foreign students who are able to study in the U.S. only long enough to earn an M.A. degree. In this case, students gain a solid, thorough education in Western theater history and criticism, as well as scholarly and pedagogical methodologies.

#### **Degree Requirements**

Total credits required: 45 Residency: 3 quarters minimum Capstone experience: Thesis, comprehensive examination, or internship with completion of dramaturgy casebook

#### **Specific Course Requirements**

Intro to Grad Study (THAR 500)

(preparation for comprehensive

**Total Required Courses** 

examination)

Electives

Production Practicum- (THAR 505 or 535)	2 cr
Dramaturgy or Production Practicum (THAR 505, 535, or 575P)	2 cr
Readings in Theater 5tudies (THAR 570), 3 quarters	3 cr
Dramatic Criticism (THAR 575, 576, 675)	8 cr
Dramatic Literature (THAR 573, 670, 770, 771, 772, 773, 774, 775, 776, 777, CA 770, 771, 772, 773, 774, 775, 776)	8 cr
Independent Study in Theater History	,

Courses in directing and playwriting are strongly encouraged for students interested in dramaturgy. Other electives may include design, dance, music, literature, languages, etc., with the advice and consent of your advisor.

6 cr

36 cr

9 cr

Admission is based on a 3.0 g.p.a. in undergraduate work, three letters of recommendation, and a sample critical or research paper. A personal interview is recommended.

#### Sample Program

Fall

Introduction to Graduate Study

Practicum in Design and Technical Theater

Seminar in Theater History

Greek Theater and Drama or Restoration and 18th-Century Theater or Seminar in Dramatic Writing (Playwriting)

Readings in Theater Studies

#### Winter

Practicum in Dramaturgy

Dramatic Criticism I

Roman and Medieval Theater or 8aroque European Theater

or Seminar in Theater History
Research Techniques for the Theater

Elective

#### 5pring

5eminar in Theater History

Nineteenth Century European Theater or Modern Theater or First Principles of Directing

Readings in Theater Studies

Comprehensive Examination

#### Additional Quarter (optional)

Thesis or internship

Practical Work: two practicum assignments in production work, e.g., acting, technical production, or public relations crew work

Electives: classes in directing, theatrical design, dance, music, literature, languages, etc., with advice and consent of your advisor

Thesis/Comprehensive Exam/Internship

#### M.A. in Theater

The Master of Arts degree in Theater is a one-year program that provides the student with a broad-based graduatelevel education in all areas of theater: historic, dramatic, and practical. Each student is required to undertake a strong base in theater history and drama, with additional coursework in playwriting, directing, and design. The student is able to apply this work to the practice of School of Theater productions. Masters' students demonstrate their proficiency through a comprehensive examination, written thesis, performance project, or, for exceptional students, internship at a professional theater. All work takes place in the context of a professionally oriented School of Theater, and coursework is with M.F.A. students led by professionally active faculty.

Providing a diverse education, this program enables graduate students and those entering the professional theater to broaden future goals and hone skills. The program is especially appropriate for individuals whose undergraduate major was in an area other than theater/drama, or for those who are returning to theater studies in mid-career. International students who wish to gain a knowledge of Western theater studies and practice are also encouraged to apply.

Admission is based on a 3.0 g.p.a. in undergraduate work, three letters of recommendation, and a writing sample. Admission to an area of specialization is required for entry. A personal interview is recommended.

#### **Specific Course Requirements**

Three quarters of residency including:		
THAR 500	4	
Theater History/Drama	12	
Playwriting	4	
Directing*	4	
Design*	4	
Practicum	5	
Exam/Thesis/Project/Intern	4	
Specialization Area**	8	
TOTAL	45	

For the thesis or internship option, an additional quarter of registration is required.

- \*Certain courses require permission for enrollment.
- \*\*Specialization areas include theater history/drama, playwriting, directing, stage management, and design.

#### M.F.A. Programs

The M.F.A.s offered by the School of Theater are professional degrees. The Professional Actor Training Program and the Professional Playwriting Program each require a minimum of 135 credit hours over a nine-quarter (three-year) residency period. The Professional Director Training Program requires a minimum of 135 credit hours over an eight (8) quarter residency. The M.F.A. in production design and technology is a professional degree and normally requires a minimum of 135 credit hours over a nine-quarter period, but may also be, with approval of the faculty, a six-quarter program with a 90credit-hour requirement.

#### **Professional Actor Training Program**

The Professional Actor Training Program (PATP) prepares advanced students for a career as a professional actor. Led by a faculty of working theater practitioners, the school offers an intensive three-year practical program. The training is dedicated to the goal of producing well rounded, skillful actors who are as comfortable exploring the mysteries of the inner life as they are in meeting the external demands of technique—actors at home in any theatrical environment, regardless of content, style, or period. Particular emphasis is placed on conditioning the actor's vocal and physical

instruments. Development of a reliable process for approaching and rehearsing a role makes up a vital part of the work. The program also includes career studies aimed at fostering an understanding of the entertainment business.

Immersion in the acting, voice, and movement studios constitutes the bulk of the first two years. Additional coursework includes text analysis, dramatic literature, theater history, special areas of movement, and audition technique.

The Acting Studio. The first year of training features a back-to-basics curriculum concentrating on the authentic use of self, the reality of doing, and living truthfully within imaginary circumstances. The classical repertory forms the basis for the second year of work, with an emphasis on the Greeks, Shakespeare, Moliere, and Restoration comedy.

Internship. The third year is devoted exclusively to an internship at the Cincinnati Playhouse in the Park.
Students are auditioned by the Artistic Director of Cincinnati Playhouse in the Park early in spring of the second year. If the audition is successful, the student is invited to spend the third year in residence as a member of the acting intern company. The interns understudy main stage roles, perform small roles on the main stage, attend workshops, and are occasionally assigned to crew or work in the box office. A final thesis show is produced at the end of the internship.

Performance Opportunities. The first 10 weeks are dedicated to the diagnosis of individual needs. In succeeding quarters, performance opportunities abound. Every actor performs a practicum role each quarter, either in the School of Theater's mainstage offerings or in its many laboratory productions. Special stress is placed on the emerging ability to synthesize the lessons learned in the studio with the practical realities of his or her casting.

**Summer.** Some actors are afforded the opportunity to participate in a full summer of performance activities at Monomoy Theater on Cape Cod. Operated in conjunction with the Ohio University School of Theater, Monomoy has for 40 years been a memorable

experience for students and public alike. Students may receive up to 18 credit hours in acting practicum, which count toward graduation and usually earn points toward their Equity Membership.

Assessment. There is continual communication among the PATP faculty members, aimed at monitoring and advancing the training of each student. Quarterly evaluations are scheduled to inform students of their progress and outline specific areas of strength and weakness. Students showing consistent growth are invited by the faculty to continue in the succeeding year of training.

Admission. Admission to the program is by interview and audition conducted at the University/Resident Theatre Association (U/RTA) National Unified Auditions in New York, Chicago, and the West Coast, as well as on the OU campus in Athens. The PATP is open to a limited number of talented, mature, and motivated students. Minimum requirements for the M.F.A. include 78 credit hours in acting courses, 10 credits in acting practicum, 2 credits in technical or management practicum, 2 credits in introduction to graduate studies, 12 credits in history/ criticism/literature, 12 credits in thesis production, and 15 credits in internship. Independent studies and/or electives comprise the remaining requirements.

#### Sample Program

First Year
Fall Quarter
Introduction to Graduate Studies

Acting I

Voice and Speech I

Movement !

Technical Practicum

Winter Quarter Acting II

.

Movement II

Voice and Speech II

Audition Techniques

Practicum in Acting

Spring Quarter

Acting III

Voice and Speech III

Movement III

Seminar (Dramatic Literature or Theater History)

Practicum in Acting

Second Year Fall Quarter

Acting IV

Voice and Speech IV

Movement IV

Seminar (Dramatic Literature or Theater History)

Practicum in Acting

Winter Quarter

Acting V

Voice and Speech V

Movement V

Elective

Practicum in Acting

Spring Quarter

Acting VI

Voice and Speech VI

Movement VI

Seminar (Dramatic Literature or Theater History)

Practicum in Acting

Third Year

Independent Studies in Acting

Internship in Acting

Winter Quarter

Independent Studies in Acting

Internship in Acting

Spring Quarter

Independent Studies in Acting

Thesis Performance

#### Professional Director Training Program

The Professional Director Training Program is designed to train and prepare directors for a career in the professional theater. It embodies the faculty's belief that a classical foundation better prepares a director to work in any style or medium. The program admits no more than two candidates each year. Admission is granted as a result of admission to the University and a combination of recommendations by those familiar with the applicant's work and an interview with the program head.

During the three-year course of study, directors will develop and practice their craft in a variety of ways, ranging from scene work to directing fully supported mainstage productions. The primary focus of the first year is for the director

to become familiar working with the elements and people involved in producing theater. Given satisfactory progress, the second year has a focus on the application of work done during the first year through a variety of laboratory and other directing experiences. Given continued satisfactory progress, the third year is the culmination of the previous two and serves as an entry into the theater. This may be accomplished by directing a fully supported thesis production.

Requirements for a M.F.A. in directing are 135 hours. Detailed requirements will be given to the student upon enrollment. There is a quarterly evaluation of each student. Students exhibiting consistent growth and preparation for a career in the professional theater will be invited to return for the next year of training.

#### Sample Graduate Directing Program

First Year

Fall Quarter

Introduction to Graduate Studies

Directing 1

Acting 1

Scene Design

Practicum in Production

#### Winter Quarter

Directing II/Performance Collaboration

Acting II

Costume Design

Directing Practicum/Realism Project

Elective

#### Spring Quarter

Directing III/New Play Collaboration

Acting III

Playwrights Workshop

Lighting Design

Directing Practicum/Realism Project

#### Second Year Fall Quarter Directing IV

Directing Practicum/New Play Project

Dramatic Criticism (

Elective

#### Winter Quarter

Directing V Playwriting II

Directing Practicum/Verse Project

Dramatic Criticism II

Advanced Lighting Technique

#### Spring Quarter

Directing VI/New Play Collaboration

Seminar in Directing/Thesis Preparation

Directing Practicum/Verse Project

Directing Theories

Elective

#### Third Year

Directing VII,VIII,IX

Thesis Production

Management Seminar

Playwriting/Screenwriting

Intro to Film

Directing for Camera

#### **Professional Playwriting Program**

The Professional Playwriting Program seeks to train playwrights to become craftspeople and artists who contribute to the culture. The basic and advanced principles of the craft can be learned through earnest study of our dramatic literary heritage and intensive practical application of the craft.

The M.F.A. is earned through the completion of 135 credit hours of coursework over three years. The third year may include an internship with a professional theater company. Coursework includes Playwrights Workshop, Playwrights Seminar, Playwrights Production, Theater History and Criticism, and a variety of electives. The goal of the program is to create an environment in which each writer can develop his or her unique voice while freely experimenting with different theatrical styles and forms. In this environment, writers in the program will complete a body of work, much of which will be produced during their course of study. The degree is awarded for significant progress in the development of dramatic writing skills and the completion of a body of work that is suitable for professional production.

There are four major components to the Professional Playwriting Program at Ohio University:

#### **Playwrights Workshop**

Playwrights Workshop is the laboratory for the development of full-length plays. Much of the work in Playwrights

Workshop focuses upon the practical application of playwriting theory introduced in Playwrights Seminar. Workshop consists of a weekly reading of a play by a different writer of the workshop. These rehearsed readings are open to the public and usually draw upon actors from the Professional Actors Training Program and the B.F.A. Performance Program at the School of Theater. After each reading, the workshop writers meet in a private session to discuss the play. Approximately half of the discussion during this session is in the form of notes and feedback to the writer whose play was read. The other half focuses upon playwriting theories and concepts generated by the reading. Students in the Professional Playwriting Program take Playwrights Workshop every quarter while in residence at Ohio University, except for the fall quarter of their first year.

#### **Playwrights Seminar**

Playwrights Seminar is a part of the theory-based portion of the program. In the first year, these classes explore basic theories of dramatic structure and serves as a laboratory for the beginning of new work that will eventually move into the Playwrights Workshop. In the second and third year, Playwrights Seminar focuses upon the application of dramatic structure, its relationship to the craft of playwriting, as well as different playwriting structures within the genre, such as theatrical adaptation of nondramatic material, the one-person play, or non-linear story-telling. Student in the Professional Playwriting Program must take Playwrights Seminar every quarter during their first year. During their second and third year, they must take seminar four out of six quarters.

#### **Playwrights Production**

Playwrights Production is part of the practical-based portion of the program consisting of a weekly informal production of new work. It begins early in the week with a different writer of the program selecting a theme, style, or concept for the upcoming production. Each writer must then write a three- to five-minute piece based upon that theme, style, or concept. Each piece is written, cast, and

rehearsed throughout the week in preparation for the Friday night, scriptin-hand production presented before an invited audience. Students in the Professional Playwriting Program take Playwrights Production every quarter while in residence at Ohio University.

#### **Annual Playwrights Festival**

The Annual Ohio University Playwrights Festival represents the culmination of the work of the writers in the program. Theater professionals from around the country are invited to the University to respond to the work of Ohio University playwrights. During the festival, firstyear students present their work in the form of rehearsed sit-down readings. The work of second- and third-year students is presented in the form of rehearsed reading, script-in-hand workshop productions, or full Studio productions. During the festival, playwrights receive audience feedback in addition to individual professional response and individual mentoring.

#### **History and Criticism**

In addition to these four major components of the program, students are required to take a number of more traditional courses of study in Theater History and Criticism and a variety of electives.

#### Minimum Writing and Production Expectations

In the first year, playwrights are required to develop a full-length play in Seminar. This play is taken into the Workshop in the second quarter of the first year where the play is developed in preparation for the Playwrights Festival.

In the second year, playwrights will develop another full-length play that may receive a workshop or studio production during the festival. By their third year, students must participate in the production of their work in the Studio Series, the Playwrights Festival, or in an equivalent venue. Third year students may also work as interns for a professional theater and/or assist a professional playwright in production. When appropriate, the Playwriting Program attempts to match the needs of individual students with suitable institutions for internships. Ongoing internships have been established with

Victory Gardens Theater in Chicago and with New Dramatists in New York, Both of these organizations have received Tony Awards for leading the nation in their work with playwrights and the development of new plays. Other playwriting internships have been established with organizations such as The Acting Company (NYC), Pan Asian Repertory (NYC), Steppenwolf (Chicago), Goodman Theatre (Chicago), Indiana Repertory Theater (Indianapolis), People's Lights and Theatre Company (Philadelphia), Freedom Theatre (Philadelphia), and Intiman (Seattle). When not on internship, third year students are expected to take a leadership role in the Workshop in addition to serving as producers of the Playwrights Festival.

Note: Plays begun before acceptance in the Professional Playwriting Program will not be developed in the program.

#### **Enrollment**

Minimum standards for acceptance include a 3.0 g.p.a. for undergraduate work and the submission of two sample manuscripts in dramatic form.

Admission is based on evaluation of the applicant's writing sample, résumé, goals statement, and recommendations from references. A visit to the University and an interview are strongly encouraged.

#### **Total Requirements**

Intro to Grad Studies	4 hours
Practicum	2 hours
Playwrights Workshop	21 hours
Playwriting Seminar	28 hours
History & Criticism	16 hours
Playwrights Production Lab	24 hours
Playwrights Thesis Production	3 hours
Internship	15 hours
Electives	22 hours

#### Sample Program

First Year Fall Quarter Intro to Grad Studies

Playwriting Seminar: Structure 1 Playwrights Production Lab

Independent Study

Winter Quarter
Playwrights Workshop

Playwriting Seminar: Structure 2 History & Criticism Playwrights Production Lab Electives

Spring Quarter Playwrights Workshop History & Criticism Playwrights Production Lab

Second Year
Fall Quarter
Playwrights Workshop
Playwriting Seminar: Special Topics 2
Playwrights Production Lab
Electives

Playwriting Seminar: Special Topics 1

Winter Quarter Playwrights Workshop History & Criticism Playwrights Production Lab Electives

Spring Quarter
Playwrights Workshop
Playwrights Production Lab
Playwriting Seminar: Advanced Topics
History & Criticism
Electives

Third Year
Fall Quarter
Playwrights Workshop
Playwriting Seminar: Advanced Topics
Playwrights Production Lab
Electives

Winter Quarter Internship\*

Spring Quarter Playwrights Workshop Playwriting Seminar Playwrights Production Lab Thesis Production

\*Internship may be taken in the fall or winter quarter of the third year.

Samples of Theater History and Criticism Sequences:

Dramatic Criticism 1 & 2
Greek Theater and Drama
Roman and Medieval Drama
Contemporary American Women Writers
Renaissance Theater and Drama
Restoration and 18th Century
19th Century European
African Theater
Modern Drama
Theater of the Harlem Renaissance
American Theater and Drama
Independent Study

#### Professional Program in Production Design and Technology

The M.F.A. in production design and technology is a three-year program that strives to prepare students for professional careers. For designers, the first year of the program deals primarily with unleashing the imagination and examining the process of how to translate the written word into meaningful visual images. The second and third years allow for refined skill development and increasing specialization in an area of concentration with an emphasis on professional portfolio development. Technology students are involved in production, craft, and skill classes each quarter of residence. The development of fine craft and technical skills is essential, but the focus is on the development of top-notch managerial skills.

Participation in a specified production activity each quarter is required. These assignments relate directly to the students' area of concentration. At specified times they will consist of assuming senior staff positions on the main stage, such as designer, technical director or cutter/draper.

The thesis for all students consists of a main stage design (or equivalent technical assignment) and a formal exit portfolio review. For scenery and costume designers, this simulates the United Scenic Artists Union interview/exam. In all cases, portfolios are expected to meet prevailing pro-fessional standards for job placement in the field.

At least one-quarter of the third year is expected to consist of an internship at a major LORT or commercial theater in the United States or abroad (usually London). Students are expected to attend at least one national convention every year. Qualified design students may be invited to participate in the Annual National Portfolio Review at Lincoln Center. Students are strongly encouraged to spend their summers and winter breaks working in leading professional theaters.

Total credit-hour requirements are based on a normal load of 15–18 credit hours per academic quarter for nine quarters of residency. Minimum course requirements for the three-year MFA include 58 credits of core courses and at least 77 credits of specific area requirements for a total of 135 credits. Any course may be waived at entry in recognition of previous academic or professional experience. For exceptional students with significant prior experience, a maximum of 45 credits may be waived at entry.

Admission to the program requires either a 8.A. or B.F.A. and is based on an evaluation of your portfolio, resume, and recommendations, as well as a review of your academic qualifications for graduate work. A visit to inspect the facilities and an interview with the design staff is encouraged.

#### **Program Requirements**

Core Courses

Introduction to Graduate Studies

Practicum in Design and/or Technical Production

Lighting Design or Electrics

Historical Bases of Design I and II

Theater History

Performance Photography

Digital Drawing for the Theater

Thesis

Internship

Scenography

Scene Design

Costume Design

Lighting Design

Costume History

Model Construction

Drafting for the Stage

Directing

Directed Electives

Scene Design

Scene Design

Advanced Scene Techniques

Studies in Scene Design

Costume Design

Lighting Design or Advanced Lighting Techniques

Model Construction for the Scene Designer

Drafting for the Stage

Scene Painting

**Properties Construction** 

Directing

Directed Electives

Costume Design

Costume Design

Costume History

Costume Crafts Construction

Costume Painting

Costume Period Patterning

Costume Construction

Scene Design

Directing

Directed Electives

Scenic Technology (Props and/or Scenic Artist)

cene Design

Props Construction and Organization for the

Stage

Specialized Prop Studies

Welding

History of Costume

History of Furniture

Costume Painting

Model Construction for the Scene Designer

Drafting for the Stage

Costume Crafts Construction

Scene Painting

Costume Construction

Soft Goods

Rigging

Directed Electives

Costume Technology (Construction or Costume

Crafts)

Costume Design

History of Costume

Costume Crafts Construction

Props Construction and Organization for the

Stage

Costume Painting

Costume Period Patterning

Costume Construction

Internship

Directed Electives

Lighting Design Stage Management

Lighting Design

\_\_\_\_\_

Electrics

Advanced Lighting Techniques

Advanced Lighting Studies

Scene Design

Advanced Scene Techniques

Riaaina

Drafting for the Stage

Directing

Sound Design

Directed Instruction

Directed Electives

**Technical Direction** 

Technical Direction

Advanced Technical Studies

Scene Design

Props Construction and Organization for the Stage

Drafting for the Stage

Costume Crafts Construction

Scene Painting

Welding

Rigging

Directed Electives

#### Sound Design

Stage Management

Electrics

Scene Design

Advanced Scene Techniques

Rigging

Drafting for the Stage

Sound Design I

Sound Production

Directing

Film Topic 5eminar

History of Musical Styles

Audio and Video Production

Directed Instruction

Directed Electives

#### Theater Courses (THAR)

090 Lunchbag Theater Seminar Series (0) 5eminar and discussion about trends in theater scholarship, production, and performance techniques. May be repeated.

500 Introduction to Graduate Study (4) Prereg: grad theater major. Orientation to graduate theater study and professional theater.

502 Theater Management (4) Management in performing arts. 3 lec.

505 Practicum in Theater Management (2-4) Prereq: perm. Supervised lab practice in problems of theater publicity, finance, ticket office, and house management.

510A Acting Technique I (4-6)

Prereg: grad acting major. Intensive training focused on "poetic realism" text work with scenes and monologues plus exercises

510B Acting Technique II (4-6) Prereq: 510A. Continuation of 510A. See 510A for description.

510C Acting Technique III (4-6)

Prereq: 510B. Intensive training focused on "classical" text work with scenes, monologues,

515 Practicum in Acting (2-4)

Prereg: perm. Supervised lab practice in rehearsal and performance.

516A Basic Movement for the Actor (3) Prereg: grad acting major. A combination of mind-body-voice work methods addressing movement demands for the actor. Methods used are Todd/5weigard, Feldenkrais, Selver, Linklater, Corporeal, and Laban Dance. Once there is an understanding of the instrument, the work

focuses on clarity of expression, presence, and the energy of acting

516B Neutral Mask Mime (J. Lecog Technique) (3) Prereg: 516A. Use of the Neutral/Universal Full mask. The actor is given various tasks to accomplish with focus on eliminating the intrusion of actor tension and on simplifying the physical communication through clear and distinct images.

516C Physical Acting I (3)

Prereg: 516B. Work that allows for the transition between pure movement classes and the specific responsibilities of the actor. Actors are involved in task-oriented exercises offering an opportunity for movement to be observed for clarity and simplicity. Observation addresses personal physicality; rhythms and energy identify intrusive personal idiosyncrasies. Through repetition, the actor achieves a more complete metamorphosis and understanding of characterization; monologue work used extensively

517A Voice and Speech for the Actor (3) Prereg: grad acting major. A progression of intensive training beginning with the perception of breath and sound, the technique of droppingin text, and the introduction of skills to free the jaw, tongue, and soft palate. Work on the International Phonetic Alphabet addresses regionalism in speech.

517B Voice and Speech for the Actor (3) Prereg: 517A. The voice work covers freeing and developing the chest, mouth, and front teeth resonators. The speech work continues the study of phonetics with an emphasis on consonants and speech rhythms.

517C Voice and Speech for the Actor (3) Prereg: 517B. Continued resonance training with a focus on the mask and head resonators, power and range. Carry-over of speech work into classical text.

51B Practical Phonetics (2)

This course is designed for international students and teaching assistants who wish to improve their speech, pronunciation skills, modify accents or regionalisms for a more effective communication. Exercises to address resonance, projection, and pitch intonation will also be introduced.

520A First Principles of Directing (4)

Prereq: grad directing major. First inquiry into nonactor-related prerehearsal considerations, text selection, analysis, space, and environment in relation to concept and design.

520B Audition Technique (2-6)

Prereq: 520A. Scene work with actors using concept and project explored during previous quarter.

520C Directing Project I (6)

Prereq: 520B. Basic rehearsal techniques and procedures.

525 Practicum in Directing (2-4)

Prereg: perm. Practical experience as directorial staff member for production in public performance or as director for lab theater experience.

526 Stage Management (3)

Theoretical course in techniques and methods of professional stage management.

52B Stage Management II (4)

Prereq: 526. The stage manager's role in various professional theater organizations and their union contracts will be covered. Theater internships, résumés and cover letters will be taught.

530 Technical Direction (4) Role and responsibilities of technical director.

530A Intro to Stage Rigging (4)

Prereq: 530. This course focuses on safe and acceptable standards for stage rigging practices within the Entertainment Industry. The course covers load calculation methods, properties of rigging equipment and performance/safety rating methods, risk management, and rigging system inspection criteria.

530B Welding for the Theater (2)

An introduction to the materials and techniques of welding and metal fabrication for the scenic

#### 530C Application and Technique for Theatrical 5oftgoods (1-4)

Prereq: 530. Introduction to contemporary theatrical fabrics and the creation of theatrical softgoods. Students will learn how to select fabrics, pattern and manipulate them for theatrical scenery applications. Projects include the maintenance and construction of stage drapes and painted drops.

531A Lighting Design (4)

Light as an element of design.

531B Electrics I (4)

Covers elements of technical production practice related to lighting: electrical practice for the stage, the physics/optics of contemporary theatrical equipment, and principles related to color and light as an element of production.

532 Advanced Costume Design (4 max 12) Prereq: 538. Problems and projects in theatrical costume design emphasizing character, conceptualization, collaboration, and research skills. Fall quarter emphasis is placed on collaborations with set designers; winter quarter emphasis is placed on collaborations with directors.

534 Scene Design (4)

5cene design styles of premodern drama theory and practices. Repeatable to 12 credits.

Practicum in Design and/or Technical Production (2-6)

Prereq: perm. Practical application of design and technical theory.

536A Digital Drawing for the Theater:

Photoshop Illustration Techniques (4) Prereq: perm. This course uses Photoshop to teach digital drawing and painting techniques, collage and layering techniques, and photo correction and reproduction techniques for the creation of theatrical design research, illustrations, and digital portfolios.

536B Digital Drawing Topics (4)

Prereq: perm. This course teaches digital drawing, drafting, rendering, modeling, illustration, and photo reproduction skills necessary for theatrical designers and technicians engaged in production design and construction processes, research, and portfolio development.

536F Properties Construction and Organization for the Stage (4)

An introduction to the organizational skills and craft techniques required to hold a job in a professional prop shop.

53B Costume History (4)

The development of dress and the influence of cultural factors from the Greeks to modern

538A Historical Bases of Design—Part I (4) Prereq: major. Research techniques and resources in history, the arts, and period "style" from antiquity to the early Renaissance in western civilizations for theatrical production.

53BB Historical Bases of Design—Part II (4) Prereq: major. A continuation of 538A, covering the period from the high Renaissance to the present.

#### 545 OVST Practicum (1-6)

Prereq: perm. Supervised practice and experimen-tation in the company operation of a community theater performance project. May be repeated for credit. Su.

#### 550 Playwrights Workshop (3, max 9)

Prereq: perm, prior approval, acceptance of scripts. Practical workshop study and production of plays written by students.

#### 570 Readings in Theater Studies (1-2)

Reading and discussion of current research in theater history, theory, and criticism.

#### 573 Seminar in Theater and Drama: Selected Topics (4)

Provides an in-depth examination of a selected area of theater history and drama. (May be repeated for credit.)

#### 575 Dramatic Criticism I (4)

Principles of dramatic criticism from Aristotle to modern theater.

#### 575P Practicum in Dramaturgy (2-6)

Prereq: permission. Practical experience as a dramaturgy in School of Theater productions, including historical, textual, and bibliographical research, as well as audience outreach.

#### 576 Dramatic Criticism II (4)

Prereq: S7S. Modern dramatic criticism from time of lbsen to present.

## time of Ibsen to present. 605 Practicum in Theater Management (2–4)

Prereq: perm. Supervised lab practice in problems of theater publicity, finance, ticket office, and house management.

#### 606 Individual Projects in Performance Management (6)

Working with performance management projects selected prior to course. Orientation may be production or research.

#### 610A Advanced Problems in Acting and Performance (4-6)

Prereq: \$10C. Continuation of 510C.

#### 610B Advanced Problems in Acting and Performance (4-6)

Prereq: 610A. Intensive training focused on "contemporary" text work with scenes, monologues, and exercises plus audition and interview technique.

#### 610C Advanced Problems in Acting and Performance (4-6)

Prereq: 610B. Continuation of 610B plus film and TV acting technique.

#### 615 Practicum in Acting (2-4)

Prereq: perm. Supervised lab practice in rehearsal and public performance of roles.

#### 616A Advanced Movement for Actors (3) Prereq: S16C. Continuation of 516B; focus on classical comedy.

616B Advanced Movement for Actors (3)
Prereq: 616A. Use of extremely expressive masks to extend the actor into characterization. The work demands believable support externally and

## internally for grotesque persona. Clarifies strong sense of flexibility, imagination, line, and strength.

616C Advanced Movement for Actors (3) Prereq: 616B. Historical information leading to the development and decline of the commedia del'arte characters, basic scenarios, and improvisation. An expansion of the character masks both physically and vocally leading to characterization appropriate to the spirit of commedia del'arte.

## 617A Advanced Voice and Speech for the Actor (3)

Prereq: \$17C. Continuation of \$17ABC.

Introduction to the language of Shakespeare, scansion, the first folio work, and the carry-over into Shakespearean text.

## 617B Advanced Voice and Speech for the Actor (3)

Prereq: 617A. British dialects are introduced and scenes are studied, transcribed, and rehearsed for class performance at the end of the quarter.

## 617C Advanced Voice and Speech for the Actor (3)

Prereq: 617B. Voice-over acting for practice and recording in the theater sound studio (a four-week session). A continuation of the study of dialects (American and European).

#### 620A Individual Projects in Directing (6)

Prereq: 520C. Working with full-length text in class or lab theater/playwrights workshop presentation. Emphasis on scripted materials in forms and modes previously unfamiliar to student

#### 620B Improvisational Techniques in Directing (2-4)

Prereq: 2nd-yr grad director. Working with nonscripted material under leadership of master teacher

#### 620C Advanced Individual Projects (6)

Prereq: 620A. Working with full-length text in class or lab theater/playwright's workshop presentation. Emphasis on new areas of examination.

#### 621 Directors on Directing (4)

Theoretical and historical readings and discussion.

#### 625 Practicum in Directing (2-4)

Prereq: perm. Practical experiences in directing actors in special projects outside of class, i.e., lab theater, playwright's workshop, or other approved assignments.

## **626** Practicum in Stage Management (2–4) Prereq: S26. Practical experience in production stage management.

## 630 Advanced Technical Direction (4) Prereq: 530.

## **631** Advanced Lighting Techniques (4) Prereq: 531.

## 632 Advanced Costume Design (4 max 12) Prereq: 532. Advanced problems and projects in theater and film costume design emphasizing style, conceptualization, and collaboration. Fall quarter studies design for fantasy and high theatricality; winter quarter studies film and television design.

#### 633 Touring: Production Design (12)

Prereq: grad production design major. Practical course to familiarize advanced design and technical production students with solution of problems inherent in touring theatrical productions.

## 634 Advanced Scene Techniques (4) Prereq: 534.

### 635 Practicum in Design and/or Technical Production (2–6)

Prereq: perm. Practical application of design or technical theory in planning and execution of university production in second year of training.

#### 636A Model Construction for the Scene Designer (4)

Prereq: perm. An introduction to the materials and techniques of model construction for the stage. Repeatable to eight credits.

#### 636B Drafting for the Stage (4)

Fundamental and advanced problems of drafting for the stage. The course is geared to the set designer, the lighting designer, and the technical director. Repeatable to eight credits. *Belden; Sp; Y.* 

#### **636C** Costume Crafts Construction (2-4) An introduction to materials and techniques used in theatrical crafts construction. Casting

used in theatrical crafts construction. Casting materials, mask making, and soft sculpture techniques will be emphasized.

#### 636D Costume Period Patterning (4)

Prereq: 535. An introduction to period patterning techniques.

#### 636E Scene Painting (1-4)

Introduction to painting techniques, materials, and color problems for the stage.

### 636F Advanced Prop Techniques: Furniture Construction (4)

Prereq: perm. Advanced studies in furniture construction for the props artisan covering woodworking, upholstery, carving, finishing, and furniture repair. May be repeated.

## **636G** Advanced Prop Techniques: Steel Work (4) Prereq: perm. Advanced studies in metalworking for the props artisan covering armor research and

for the props artisan covering armor research and construction techniques and stage weapon research and construction techniques. May be repeated.

## 636H Advanced Prop Techniques: Hand Prop Techniques (4)

Prereq: perm. Advanced studies in hand prop techniques for the props artisan covering properties research techniques, foam carving, fiberglass and resin casting, positive and negative mold making from rigid and flexible materials, and rigging for special effects. May be repeated.

#### 636P Costume Painting Techniques (1-4)

Prereq: 535. Exploration of theatrical costume painting techniques using stenciling, stamping, direct dye painting, photo silk-screen dying, aging, and distressing methodologies.

#### 637A Sound Design I (4)

Prereq: 637B. An introduction to sound design for the stage. Resources and principles for the theatrical sound designer.

#### 637B Sound Production (4)

An introduction to sound production, techniques, and principles for the stage.

## 639 Independent Studies in Design and/or Technical Theater (1–6)

## 670 Seminar in Theater History (4) May be repeated as topic changes.

- 675 Seminar in Dramatic Criticism (4) May be repeated as topic changes.
- 690 Directed Instruction (1–3, max 9) Supervised practice in instructing.
- 695 Thesis (1–12)

#### 702 Theater Administration (4)

Organization and administration of educational, community, and resident theater.

## 705 Practicum in Theater Management (24) Prereq: 505 or 605, 702. Specialized lab projects relating to management of Ohio University Theater.

#### 708 Internship in Performing Arts Management (12–18)

Student is assigned to management area of a professional performing arts organization and performs duties and responsibilities under the tutelage of a trained working professional. Combines theoretical study with practical application of concepts of theater management and administration.

#### 709 Independent Studies in Theater Management (1–6)

#### 713 Internship in Acting (6–15)

Prereq: 510A,B,C; 610A,B,C. Residence with professional theatrical company.

#### 715 Practicum in Acting (4-6)

Prered 510A,B,C, 610A,B,C Performance of leading roles in major productions.

### 718 Thesis Performance in Acting (12)

Prereg. 3rd-yr grad. Preparation, rehearsal, and performance of a role for public performance.

#### 719 Independent Studies in Acting (1-6) Prereg acting major.

#### 723 Internship in Directing (6–15)

Prereg \$20A,B,C; 620A,B,C Residence with professional theatrical company

#### 726 Advanced Practicum in Stage Management (4–8)

Prereq perm Supervised production experience involving major mainstage responsibility

#### 728 Thesis Production for Directors (12)

Prereg: 520A, B, C; 620A, B, C. Preparation, rehearsal, and presentation of fully mounted play for public performance.

#### 729 Independent Studies in Directing (1-6)

730 Advanced Technical Studies (4, max 8)

#### 731 Advanced Lighting Studies (4)

Prereq: 631. Theory and practice.

732 Studies in Costume Design (4, max 12) Prereg 632.

#### 733 Internship in Design or Technical Production (2-15)

Prereq: 2nd- or 3rd -yr grad production design major. Residence with professional theatrical

#### 734 Studies in Scene Design (4, max 12) Prereq perm.

#### 735 Practicum in Design and/or Technical Production (2-12)

Prereq. 3rd-yr production design major. Practical application of design or technical theory in planning and execution of university production in third year of training.

## 73B Seminar in Production Design (4-12)

Preparation, planning, and presentation of a portfolio dealing with two or more areas of theatrical design and/or technical production.

#### 750 Seminar in Dramatic Writing (4-8, max 16)

#### 759 Independent Studies in Playwriting (1-6)

#### 763 Internship for Stage Managers (6-15)

Supervised work and observation experience at a professional theater company or in association with a professional production of theater, opera, or dance

#### 770 Greek Theater and Drama (4)

First in series of eight seminars covering in-depth theater and drama of western world from prehistoric times to contemporary. 3 lec.

- 771 Roman and Medieval Theater (4)
- 772 Renaissance Theater and Drama (4)
- 773 Restoration and 18th-Century Theater
- 774 Baroque European Theater (4)
- 19th-Century European Theater (4)
- 776 Modern Theater (4)

#### 777 American Theater and Drama (4) Study of significant movements and major playwrights of the American theater, with an

779 Independent Studies in History and Criticism (1-6)

emphasis on the 20th century.

# College of Health and Human Services

**Grover Center** 

Gary Neiman Dean

Lee Cibrowski
Associate Dean

Margaret Goodwin
Assistant Dean for
Student Services

http://www.hhs.ohiou.edu/

The mission of the College of Health and Human Services is to promote an environment within which students may pursue undergraduate and graduate degrees in health and human services fields. Programs within the college combine academic coursework with practical field and clinical experiences, providing students with basic knowledge, intellectual skills, and professional capabilities that enable graduates to think and act positively and creatively in the face of changing societal and human conditions.

## **Graduate Programs**

#### **Certificate Programs**

Gerontology

Health Care Services Administration Health Policy

#### School of Health Sciences

Master of Health Administration

Detailed information concerning the graduate program and possible financial support is available from the graduate coordinator, School of Health Sciences, Ohio University, Grover Center E317, Athens OH 45701-2979.

#### School of Hearing, Speech and Language Sciences

Master of Arts in Hearing, Speech and Language Sciences Concentration in speech languagepathology

Doctor of Audiology

Doctor of Philosophy Concentrations in audiology and speech language-pathology

Detailed information concerning graduate programs and possible financial support is available from the graduate coordinator, School of Hearing, Speech and Language Sciences, Ohio University, Grover Center W218, Athens OH 45701-2979.

## School of Human and Consumer Sciences

Master of Science in Human and Consumer Sciences Concentrations in early childhood education, family studies, and food and nutrition

Detailed information concerning graduate programs and possible financial support is available from the graduate coordinator, School of Human and Consumer Sciences, Ohio University, Grover Center W324, Athens OH 45701-2979.

#### School of Nursing

Master of Science in Nursing Concentrations in nurse administrator, nurse educator, and family nurse practitioner

Detailed information concerning the graduate program and possible financial support is available from the graduate coordinator, School of Nursing, Ohio University, Grover Center E365, Athens OH 45701-2979.

#### School of Physical Therapy

Doctor of Physical Therapy

Detailed information concerning the graduate program and possible financial support is available from the admissions committee chair, School of Physical Therapy, Ohio University, Grover Center W290, Athens OH 45701-2979, or from the Web site, http://www.ohio.edu/phystherapy/

## School of Recreation and Sport Sciences

Master of Science in Recreation and Sport Sciences

Concentrations in athletic training education, coaching education, and recreation studies

Master of Science in Physiology of Exercise

Concentrations in physiology of exercise-research and physiology of exercise-clinical

Master of Sports Administration

Master of Sports Administration/Master of Business Administration

Detailed information concerning graduate programs and possible financial support is available from the graduate coordinator, School of Recreation and Sport Sciences, Ohio University, Grover Center E160, Athens OH 45701-2979.

## Certificate Programs

#### **Gerontology Certificate**

http://www.hhs.ohiou.edu/

The multidisciplinary graduate certificate in gerontology addresses the educational needs of graduate students and professionals not only in health care but a variety of disciplines who work with the aging or elderly population who have already earned a bachelor's or graduate degree. You might be interested in completing the Gerontology Certificate if you work or plan to work in business; exercise physiology; family studies; government; health sciences; hearing, speech and language sciences; medicine; nursing; nutrition; physical therapy; psychology; recreation; sociology; or social work. The Gerontology Certificate is also appropriate for students planning to continue doctoral preparation in gerontology or related areas.

The certificate program requires completion of at least 23 credit hours from the following list of courses: Aging and Health (HLTH 613); an approved practicum (HLTH 650); at least one course in the psychosocial area; and one course in the biological/health-related area. You and your advisor choose elective courses and a practicum placement in consultation with the coordinator of the gerontology certificate program.

#### **Eligibility to Apply**

The gerontology certificate program accepts students in two categories: those who have been admitted to an advanced degree program at Ohio University and those who possess a bachelor's or an advanced degree but who are not currently in a degree program at Ohio University.

If you are not currently seeking an advanced degree from Ohio University, you must meet the following requirements to be considered for unconditional admission to the graduate certificate program:

**1** Earned bachelor's or advanced degree from an accredited college or university.

- 2 Minimum undergraduate grade-point average (g.p.a.) of 3.0 on a 4.0 scale on last 90 quarter hours or last 60 semester hours (undergraduates) or an earned graduate or professional degree.
- **3** Satisfactory Graduate Record Examination (GRE) or Graduate Management Admission (GMAT) scores if you do not possess a graduate or professional degree.

#### **Application**

#### Degree-seeking graduate student.

If you are currently enrolled as a graduate student seeking an advanced degree at Ohio University, obtain an Application for Update of Program(s) from Graduate Studies, any dean's office, or the coordinator of the Gerontology Certificate Program. After completing the application and obtaining your advisor's and the program coordinator's signature, turn the form in to Graduate Studies. Each quarter on your DARS (Degree Audit Report System) you will be able to track your progress in the certificate program.

**Nondegree student.** To apply for the certificate program as a nondegree student, submit the following materials:

- 1 Two copies of the application for graduate admission, indicating admission as a nondegree student in the Gerontology Certificate Program.
- **2** Graduate Record Examination (GRE) or Graduate Management Admission Test (GMAT) scores. This requirement is waived for applicants who have already earned a graduate or professional degree.
- **3** Official transcript(s) from each postsecondary institution attended. (You do not, however, have to send transcripts of any studies at Ohio University.)
- **4** An essay identifying your career goals and objectives.
- **5** A résumé, including your educational background and professional work experience.
- **6** Three letters of recommendation from people who are qualified to evaluate your capability for graduate study.

Submit your completed application, GRE or GMAT scores, nondegree

student application fee, and transcripts to the Office of Graduate Studies, Ohio University, McKee House, Athens, OH 45701-2979.

The essay, resume and letters of recommendation should be sent directly to the gerontology certificate coordinator, College of Health and Human Services, Ohio University, Grover Center E150, Athens, OH 45701-2979.

#### **Required Courses**

HLTH 613 Aging and Health (4)

HLTH 650 Practicum (1~5)

Plus one course from the psychosocial group and at least one course from the biological/health-related group. Other courses may be substituted with prior approval of certificate program coordinator.

#### Psychosocial Group

SW 586

EDCE 638 Gerontological Counseling (3)
HCCF 562F Family Ties and Aging (4)

HCCF 580 Death and Dying (4)
HCCF 689 Self, Aging, and Society (4)

PHIL 580 Thinking About Death (4)

PSY 674 Psychological Aspects of Aging (4)

Aging in American Society (5)

#### Biological/Health-Related Group

HLTH 605 Public Health and Aging (4)

HLTH 640 Administration of Long-Term Care Facilities (4)

HLTH 641 Long-Term Care Policy and Regulations (4)

HSLS 600 Communicatively Impaired Elderly
Patient; Clinical Assessment and
Intervention (4)

H5 591 Special Topics (1–4)

PE55 521 Principles of Aging and Physical Activity (4)

Degree-seeking student who complete the program are awarded the gerontology certificate upon graduation, and a notation of the certificate is recorded on the student's transcript. Nondegree students receive a notation of the certificate on their transcripts upon completion of certificate requirements. Upon applying for graduation (for degree-seeking students) or completion of the certificate requirements (for nondegree students), you must contact the program coordinator for verification of completion and the awarding of the certificate. For more information on course offerings or other concerns, contact the gerontology certificate program coordinator, Grover Center E150, Ohio University, Athens, OH 45701-2979.

## Health Care Services Administration Certificate

http://www.ohiou.edu/healthsciences/healthcertificate.htm

The health care services administration certificate program is intended for health and health-related professionals who want the basic administrative and managerial knowledge that this program can provide. The certificate program exposes you to the competencies, knowledge and skills, needed to function more effectively in a variety of administrative and managerial roles throughout health services organizations. Certificate holders will be prepared to work collaboratively with professionals from a variety of disciplines to gain insights into rural and urban program administration and services in order to be able to work with both under-served and other population groups.

The curriculum will prepare baccalaureate and advanced degree graduates, clinical and allied health professionals and business degree graduates to administer programs and agencies that deliver health care and provide supportive leadership skills in a variety of health care services. The certificate program requires a minimum of 27 credit hours consisting of six graduate courses and a practicum.

#### **Eligibility to Apply**

The health care services administration certificate program accepts students in two categories: those who have been admitted to an advanced degree program at Ohio University and those who possess a bachelor's or advanced degree but are not currently in a degree program at Ohio University.

If you are not currently seeking an advanced degree from Ohio University, you must meet the following requirements to be considered for unconditional admission to the graduate certificate program:

- **1** Earned bachelor's or advanced degree from an accredited college or university.
- 2 Minimum undergraduate grade-point average (g.p.a.) of 3.0 in a 4.0 scale in last 90 quarter hours or last 60 semester

hours (undergraduates) or an earned graduate or professional degrees.

- **3** Satisfactory Graduate Record Examination (GRE) or Graduate Management Admission Test (GMAT) scores if you do not possess a graduate or professional degree.
- 4 Satisfactory completion of undergraduate or graduate prerequisites in statistics, management, and accounting (must obtain a grade of "C" or better) which are prerequisites for some of the required courses.

#### **Application**

Degree-seeking graduate student. If

you are currently enrolled as a graduate student seeking an advanced degree from Ohio University, obtain an Application for Update of Program(s) from Graduate Studies, any dean's office, or the coordinator of the Health Administration Certificate Program. After completing the application and obtaining your advisor's and the program coordinator's signature, turn the form in to the Graduate Studies. Each quarter on your DARS (Degree Audit Report System) you will be able to track your progress in the certificate program.

**Nondegree student.** To apply for the certificate program as a nondegree student, submit the following materials:

- 1 Two copies of the application for graduate admission, indicating admission as a nondegree student in the Health Care Services Administration Certificate Program.
- 2 Graduate Record Examination (GRE) or Graduate Management Admission Test (GMAT) scores. This requirement is waived for applicants who have already earned a graduate or professional degree.
- **3** Official transcripts from each postsecondary institution attended (transcripts of coursework completed at Ohio University do not need to be submitted).
- **4** A statement of goals and objectives (2-3 double-spaced typed pages), which serves as a writing sample and helps to convey to the Graduate Committee a sense of who you are, what your experiences have been, and how these factors relate to your desire to pursue

this graduate certificate. Be sure to include your goals for graduate study, how your goals for study relate to what you are currently doing or your plans following graduation, and why you want to receive this certificate.

- **5** A résumé, including your educational background and professional work experience.
- **6** Three letters of recommendation from people who are qualified to evaluate your capability for graduate study. Please make certain to include the program you plan to pursue on the form prior to giving it to the person providing the reference.
- **7** Test of English as a Foreign Language (TOEFL) score from applicants whose native language is not English. The minimum score must be 575 on the written or 233 on the computer version for consideration.

Submit your completed application, GRE or GMAT scores, nondegree student application fee, and transcripts to the Office of Graduate Studies, McKee House, Ohio University, Athens OH, 45701-2979.

The statement of goals and objectives, résumé, and letters of recommendation should be sent directly to the health care services administration coordinator, Grover Center E317, Ohio University, Athens, OH, 45701-2979.

HITH 601 Introduction to the Health Care

#### **Required Courses**

HLIH BUT	Delivery System (4)
HLTH 603	Administration of Health Care Organizations and Systems (4)
HLTH 621	Health Care Finance (4)
HLTH 630	Epidemiology in Health Planning (4)
HLTH 638	Strategic Planning & Marketing for Health Services (4)
or HLTH 610	Program Evaluation and Assessment in Health Care (4)
HLTH 628 or HLTH 608	Health Law (4) Health Policy (4)
HLTH 650	Practicum (3)

In order to be awarded the certificate you must complete the above courses with an overall g.p.a. of 3.0 and no grade in an individual course lower than a "C".

Degree-seeking students who complete the program are awarded the health care services administration certificate upon graduation, and a notation of the certificate is recorded on the transcript. Nondegree students receive a notation of the certificate on their transcripts upon completion of the certificate requirements. Upon applying for graduation (for degreeseeking students) or completion of the certificate requirements (for nondegree students), you must contact the program coordinator for verification of completion and the awarding of the certificate. For more information on course offerings or other concerns, contact the coordinator of the health care services administration certificate program.

#### **Health Policy Certificate**

http://www.hhs.ohiou.edu/

The multidisciplinary graduate certificate in health policy addresses the educational needs of graduate students and professionals in health care and related industries who have already earned a bachelor's or graduate degree. You might be interested in completing the Health Policy Certificate if you work or plan to work in business, government, health sciences, hearing and speech sciences, medicine, nursing, nutrition, political science, physical therapy, psychology, or social work.

The health care industry is currently undergoing radical modifications in order to provide services to the general population that are fair, humane, and cost efficient. The academic requirements for the certificate are not only timely but essential to individuals who will influence policy decisions in this vital area.

#### **Eligibility to Apply**

The Health Policy Certificate Program accepts students in two categories: those who have been admitted to an advanced degree program at Ohio University and those who possess a bachelor's or advanced degree but are not currently in a degree program at Ohio University.

If you are not currently seeking an advanced degree from Ohio University, you must meet the following requirements to be considered for unconditional admission to the graduate certificate program:

- **1** Earned bachelor's or advanced degree from an accredited college or university
- 2 Minimum undergraduate grade-point average (g.p.a.) of 3.0 on a 4.0 scale on last 90 quarter hours or last 60 semester hours (undergraduates) or an earned graduate or professional degree
- **3** Satisfactory Graduate Record Examination (GRE) or Graduate Management Admission (GMAT) scores if you do not possess a graduate or professional degree.

#### Application

Degree-seeking graduate student. If you are currently enrolled as a graduate student seeking an advanced degree at Ohio University, obtain an Application for Update of Program(s) from Graduate Studies, any dean's office, or the coordinator of the Health Policy Certificate Program. After completing the application and obtaining your advisor's and the program coordinator's signature, turn the form in to Graduate Studies. Each quarter on your DARS (Degree Audit Report System) you will be able to track your progress in the certificate program.

**Nondegree student.** To apply for the certificate program as a nondegree student, submit the following materials:

- 1 Two copies of the application for graduate admission, indicating admission as a nondegree student in the Health Policy Certificate Program.
- 2 Graduate Record Examination (GRE) or Graduate Management Admission Test (GMAT) scores. This requirement is waived for applicants who have already earned a graduate or professional degree.
- **3** Official transcript(s) from each postsecondary institution attended. (You do not, however, have to send transcripts of any studies at Ohio University.)
- **4** An essay identifying your career goals and objectives.
- **5** A résumé, including your educational background and professional work experience.
- **6** Three letters of recommendation, from people who are qualified to evaluate your capability for graduate study.

Submit your completed application, GRE or GMAT scores, nondegree student application fee, and transcripts to the Office of Graduate Studies, Ohio University, McKee House, Athens OH 45701-2979.

The essay, résume, and letters of recommendation should be sent directly to the health policy certificate coordinator, College of Health and Human Services, Ohio University, Grover Center E317, Athens, OH 45701-2979.

#### **Program Requirements**

You are required to complete a minimum of 21 credit hours from the following list of courses. All students are required to enroll in the core courses. You and your advisor choose elective courses.

Required Core	Courses
HLTH 608	Health Policy (4)

HLTH 622 Health Care Reimbursement (4)

Select one of the following:

POLS 510 Public Policy Analysis (5)
or POLS 515 The American Presidency (5)
or POLS 540 The Politics of Developing Areas (5)
or POLS 555 International Law (5)
or POLS 586 Public Budgeting (5)

#### **Elective Courses**

At least 8 hours must be completed.

ECON 513	Economics of the Environment (5)
ECON 515	Economics of Health Care (5)
ECON 520	Labor Economics (5)
HLTH 693	5pecial Topics Seminar (1–3)
INCO 530	Communication and Campaign (5)
JOUR 512	Ethics, Mass Media and Society (3)

## May select one course from the following: EDCE 762 Legal and Ethical Aspects of

Counseling (4)

ISE 522 Seminar on Occupational Safety
and Health (3)

PT 644 Legal and Ethical Issues (2)
or PT 837 Legal and Ethical Issues in Physical

Therapy (2)

If you are a degree-seeking student, you are awarded the Health Policy
Certificate upon your graduation if you have completed the certificate requirements, and a notation of the certificate will be recorded on your transcript. If you are a nondegree student, a notation of the certificate is recorded on your transcript upon completion of certificate requirements. Upon applying for graduation (for degree-seeking students) or

completion of the certificate requirements (for nondegree students), you must contact the program coordinator for verification of completion and the awarding of the certificate. For more information on course offerings or other concerns, contact the coordinator of the health policy certificate program.

## School of Health Sciences

http://www.ohio.edu/healthsciences/

Please note: The School of Health Sciences will not be admitting new graduate students for the 2003-2004 or the 2004-2005 academic years while the school undergoes a revision/ reorganization of its programs. Once this process is complete, the school will begin accepting applications from new graduate students planning to begin their studies in the 2005–2006 academic year. (Check the school's Web site for updated program information.) The information below is posted primarily as a reference for students already enrolled in this or related programs within the College of Health and Human Services.

The School of Health Sciences offers a graduate program leading to the Master of Health Administration (M.H.A.) degree. The contemporary and rigorous curriculum, coupled with an extensive administrative internship experience, prepares students for entry-level and mid-level management positions within the field of health administration. Graduates will obtain employment in a wide variety of facilities and settings including, but not limited to, hospitals, nursing homes, physician practices, consulting firms, managed care organizations, and health departments.

To be awarded the Master of Health Administration degree, you must earn 83 quarter hours, including a two-quarter-long internship. The maximum time allowed between the date that you first initiate graduate study toward the M.H.A. and the date that you complete the requirements for the degree is seven calendar years. The full-time M.H.A. program requires a minimum of 22 months to complete (including administrative internship). The M.H.A. program requires prerequisite introductory courses in statistics,

management, and accounting. These courses must be completed with grades of "C" or higher from an accredited undergraduate institution. Students may apply to the program prior to completion of the prerequisites, although they must be completed no later than the summer prior to enrollment. You may transfer a maximum of 12 quarter hours of graduate credit from an accredited university providing the credit is designated graduate credit at the institution where it was taken, is letter-graded B or better, was earned in the past five years, and is approved by your advisor. Credit for courses taken by correspondence cannot be accepted toward the required minimum hours.

#### **Eligibility to Apply**

You must meet the following requirements to be considered for unconditional admission to the School of Health Sciences graduate program in health administration:

- **1** Earned bachelor's degree from an accredited college or university
- **2** Minimum overall undergraduate grade-point average (g.p.a.) of 3.0 on a 4.0 scale on last 90 quarter hours or last 60 semester hours
- **3** Satisfactory completion of undergraduate prerequisite in statistics, management, and accounting (must obtain a grade of "C" or higher)
- **4** Satisfactory Graduate Record Examination (GRE) or Graduate Management Admission Test (GMAT) scores

If you do not meet the above standards, you may be admitted on a conditional basis and informed of the conditions you must meet for unconditional acceptance. Conditions may or may not be taken for graduate credit. If you are admitted on a conditional basis, you are not eligible for financial assistance.

#### **Application**

The following materials must be received before your application can be considered for admission:

- 1 Graduate Application
- **2** Graduate Record Examination (GRE) or Graduate Management Admission Test (GMAT) scores.
- 3 Official transcript(s) from each post-

secondary institution attended. (You do not need to submit transcripts of coursework completed at Ohio University.)

- **4** An essay identifying your career goals and objectives.
- **5** A résumé of your professional work experience.
- **6** Three letters of recommendation from people who are qualified to evaluate your capability for graduate study. Please make certain to include the program you plan to pursue on the form prior to giving it to the person providing the reference.

Submit your completed application, GRE scores, transcripts, and application fee to the Office of Graduate Studies, Ohio University, McKee House, Athens OH 45701-2979.

The essay, résumé, and letters of recommendation should be sent directly to the graduate coordinator, School of Health Sciences, Grover Center E317, Ohio University, Athens OH 45701-2979.

Full-time students are admitted only for fall quarter. You must complete the application process by June 1 at the latest; it is recommended, however, that applications for both admission and financial aid for the following year be received by March 1. International students must also present TOEFL scores. Financial assistance, such as assistantships, are available.

Part-time students are admitted for any quarter. You must complete the application process by June 1 for fall quarter, November 1 for winter quarter, and February 1 for spring quarter.

## M.H.A. Program Requirements (83 hours)

#### Foundation Courses (65 hours)

roundation Courses (65 nours)		
ECON S1S	Economics of Health Care (S)	
HLTH 601	Introduction to the U.S. Health Care Delivery System (4)	
HLTH 602	Information Systems for Health Services (4)	
HLTH 603	Administration of Health Organizations and Systems (4)	
HLTH 604	Research and Quantitative Methods for Health Services (4)	
HLTH 608	Health Policy (4)	
HLTH 610	Program Evaluation and Assessment	

in Health Care (4)

HLTH 621	Health Care Finance (4)
HLTH 622	Health Care Reimbursement (4)
HLTH 628	Health Law (4)
HLTH 630	Epidemiology in Health Planning (4)
HLTH 63S	Human Resource Development & Management Within Health Care (4)
HLTH 638	Strategic Planning and Marketing for Health Services (4)
HLTH 648	Ethical Issues in Health Care (4)
HLTH 653	Managed Care (4)
HLTH 660	Management Applications in Health Care (4)

#### **Approved Electives (16 hours)**

#### Internship (2 hours)

HLTH 699 Administrative Internship (1-6);

Complete at least 1 hour in each of two separate

#### Courses

#### Health Sciences (HLTH)

#### Health Issues: U.S. Underserved Populations (4)

In-depth analysis of critical health issues germane to underserved populations in the United States, Emphasis on those groups suffering the most profound consequences of health problems and disease.

512 International Health Programming (4) Addresses diverse, rapidly changing health problems in developing countries while exploring roles of community health professionals. Surveys program interventions and solutions that are available or under development.

518A Instructional Experiences (1-15) Prereg: perm. Supervised practice in organizing and teaching activities in college and health related settings.

#### Health Education for the Elementary School (4)

Application of principles of curriculum development, identification of appropriate concepts and practices, and use of teaching methods and resources at elementary school level.

#### 527 Health of Women (4)

Health needs and concerns of women within the physical, mental-emotional, and social dimensions of functioning are examined. Emphasis on women as health care and product consumers.

530 Worksite Health Promotion (4) Examination of worksite health promotion programs. Guidelines for development of health promotion programs in corporate settings discussed.

#### 595 School Health Problems (5) Prereq: major/minor. Organization and admini-

stration of school health programs including school and community relationships 600 Guided Independent Study (1-2, max 2)

#### Prereq: perm. Selected areas of study with written report based on research. Introduction to the U.S. Health Care

Delivery System (4) Overview and analysis of the U.S. health services system, including an in-depth examination of how the system is organized, how services are delivered, and the mechanisms by which health care services are financed. Bolon; F; Y.

#### 602 Information Systems for Health Services (4)

Overview and analysis of the technology, planning, and management issues associated with health care information systems, including the challenges of implementing information systems for managed care, integrated delivery systems, community health networks, and other applications. Reed; F; Y.

#### 603 Administration of Health Organizations and Systems (4)

Structure, organization, and function of contemporary health care delivery organizations and systems with emphasis on managerial concepts and issues such as control, communication. leadership, and decision making.

#### Research and Quantitative Methods for Health Services (4)

Research methods and investigation in health and health care systems. Topics and problems focus on the application of quantitative methods from the perspective of the health services manager attempting to maximize efficiency and effectiveness. Reed; F; Y.

#### 605 Public Health and Aging (4)

Critical assessment of the social, behavioral, and health research on the aging population with a concern for improving the elderly's quality of life.

607 Health Promotion and Health 8ehavior (4) Theory and application of health promotion/ education planning, implementation, and evaluation by health professions in a variety of settings. Emphasis on research related to determinants of health behavior, plus strategies and techniques used by professionals to foster human health.

#### 608 Health Policy (4)

Focuses upon the development of public policy in the health care arena. Integrates political institutions and levels of government in terms of health policy development and implementation.

#### 610 Program Evaluation and Assessment in Health Care (S)

Prereg: PSY 520. Introduces students to the activities of collecting, analyzing, and interpreting information so that they understand the program evaluation process. Includes a study of the resources needed to make assessments of and determine the need for, implementation of, and effectiveness/efficiency of intervention efforts in improving health care services.

#### 611 Special Problems (1-6)

Prereg: perm. Individual research and experimentation of professional issues. Identifies pertinent problems and plans effective attack toward potential solution

#### 613 Aging and Health (4)

Theories of aging involving changes in structure and performance presented. Emphasis on normal aging changes, positive mental health and aging, health promotion and maintenance of wellness, and community health.

#### 621 Health Care Finance (4)

Prereq: ACCT 501. Explores financial administration processes within the various delivery systems and permits construction of the many financial reports.

#### 622 Health Care Reimbursement (4)

Examines each of the payment systems in effect within each of the major groups of health care delivery systems, e.g., hospitals, nursing homes, home health programs, and so forth.

623 Management in Acute Care Facilities (4) Prereg: MGT 500. Examines the administrative problems that are unique to the delivery of health care in acute care systems. Primary focus is on hospital administration.

#### 624 Community Health Programs (4) Institutional framework and activities of various

agencies promoting and maintaining health of people of community, state, and nation.

#### 628 Health Law (4)

Introduction to health care law. Examines the interface between the legal system and the health care delivery system. Considers the roles and rights of the key players in the U.S. health care system: patients, administration, governing boards, state and federal government, third-party payors, and health care providers. Hedges; Sp; Y.

630 Epidemiology in Health Planning (4) Constructs rational basis for setting priorities and allocating scarce health care resources. Examines ways in which methodologically sound health statistics can be introduced into practical arena of planning health services. Covers natural history of disease, classification of disease, levels of prevention, measurement of morbidity and mortality, causal inference, sources of health care data, description of epidemiology, and application of epidemiology to disease and injury.

#### Human Resource Management Within Health Care (4)

Practical aspects of human resource management within various health care settings. Helps prepare students to handle human resource management and development issues.

#### Strategic Planning and Marketing for Health Services (4)

Prereg: 630. Designed to give students an overview of the process of health services strategic planning and marketing. Explores community and health care program specific needs assessment, planning and marketing design, business scenarios, decision analysis, feasibility studies, implementation strategies and evaluation methods

#### Administration of Long-Term Care Facilities (4)

Overview of basic operational components and general administrative functions encountered in the management of nursing homes and other long-term care facilities.

641 Long-Term Care Policy and Regulations (4) Covers the comprehensive rules and regulations that dominate the long-term care industry which guide the daily operations of facilities. Implications for policy changes are analyzed. Will; F; D.

648 Ethical Issues in Health Care (4) Examines the dominant ethical theories and applicable principles with respect to the current significant clinical and managerial issues in health care.

#### 650 Practicum (1-5, max 5)

Prereg: perm. Supervised work experience in various aspects of administration and operation of health and health related programs.

#### Managed Care (4)

Overview and analysis of managed care, including an in-depth examination of contemporary manged care organizations and the relationship between such entities and providers. Designed to help students recognize and understand the key issues confronting administrators and managers working for and with managed care organizations. Hedges; F; Y.

#### Management Applications in Health Care (4)

Prereq: 603. Provides students with an opportunity for integrating classroom learning with the problems of the practice environment. Focuses on the application of administrative skills and concepts in terms of solving problems within health care organizations and systems.

## 690 Independent Study (1-6, max 6)

Prereq: perm. Advanced individual creative and scholarly work in health services administration and closely related fields.

#### 691 Seminar (4)

Prereq: major/minor. Research and investigation in health and health care. Topics and problems suitable for thesis writing, methods of research, writing practice, and critical analysis of outline for research study.

**693** Special Topics Seminars (1–3, max S) Selected topics not covered in regular offerings in health administration and closely related fields.

## 697 Thesis (1–5, max 8) Application of principles and practices to

Application of principles and practices to selected problems of study in the field.

**699** Administrative Internship (1-6)
Application of skills and principles of health administration within selected institutions or agencies facilitated in this residency program.

#### **Industrial Hygiene Courses (IH)**

#### 500 Industrial Hygiene Sampling and Analysis (5)

Lectures and lab to introduce field sampling and lab instrumentation and analytical methods common to industrial hygiene. Students are required to interpret readings, analyze samples, and prepare appropriate reports.

- 501 Hazardous Materials in the Workplace (4) Lectures on gases, vapors, dusts, liquids, and solids and their physical and chemical characteristics. Emphasis on sampling, evaluation, and control methods. Technical reports required, including design requirements as specified by regulatory agencies.
- 505 Ventilation for Contaminant Control (4)
  Designed to impart a working knowledge of the principles, methods, and practices of controlling worker exposure to hazardous concentrations of air contaminants and to present logical methods of design, evaluation, and maintenance of such systems.

### 510 Physical Hazards: Evaluation and Control (4)

Designed to provide a functional knowledge of methods used to evaluate and control noise, vibration, heat, light, and other factors affecting the health and well-being of the worker.

#### 515 Introduction to Radiological Health: Evaluation and Control (S)

Introduction and overview of health effects of various sources of radiation including sources, evaluation, safety, and control factors.

### 520 Hazardous Material: Management and Control (4)

Lectures on gases, vapors, dusts, liquids, and solids and their physical and chemical properties. Emphasis upon evaluation and control methods. Develop controls for specific cases and present them in technical reports.

## School of Hearing, Speech and Language Sciences

http://www.ohio.edu/hearingspeech/

The School of Hearing, Speech and Language Sciences provides academic

study leading to a master of arts (M.A.) in speech-language pathology (slp), a clinical doctorate in audiology (Au.D.), and a doctor of philosophy (Ph.D.) in speech-language pathology, audiology, and in the hearing, speech and language sciences. The professional (M.A., Au.D.) programs in audiology and speech-language pathology are accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology of the American Speech-Language-Hearing Association (ASHA).

School facilities are located in Grover Center, a newly renovated building housing the entire college. Situated at the "front door" of the University, this facility includes first-class research and learning labs for our faculty and students, hightech classrooms and student computer labs, and our state-of-the-art Hearing, Speech and Language Clinic.

The clinical program provides a variety of experiences in our new campus facility where we work closely with other disciplines, such as physical therapy. We also have many off-campus sites providing even greater opportunities to work in diverse settings with clients over the entire age span. Our campus site includes assessment and therapy rooms, a closed-circuit television system for observation and supervision, a resource/materials room, individual and group treatment rooms, and counseling rooms. Off-campus opportunities are available locally and through externships nationwide, in pediatric and adult hospitals, rehabilitation centers, schools, nursing homes, private practices, speech and hearing centers, schools, and centers for individuals with developmental disabilities. Full-time clinical faculty and adjunct clinical supervisors carry out the on-and off-campus clinical supervision.

If accepted into either the M.A. or Au.D. program, you will be responsible for your own transportation to and from clinical sites, as public transportation in the Athens area is limited. Housing and other living expenses during your externships are also your responsibility. You also will be required to: (1) obtain CPR certification; (2) have a physical examination, including evidence of results of a recent TB skin test; (3) provide documentation of current immunization for hepatitis B (or waiver

form). Because you may be exposed to infectious diseases during your affiliations, some sites may require proof of immunization for other diseases. In addition, you must purchase name tags and malpractice insurance to be eligible for participation in the clinical practica.

#### **Eligibility to Apply**

To be considered for admission, you must:

- **1** Have completed a bachelor's degree from an accredited college or university.
- **2** Have earned a minimum overall grade-point average (g.p.a.) of 3.0 on a 4.0 scale.
- **3** Submit Graduate Record Examination (GRE) scores.
- 4 Have completed a core of undergraduate courses including courses in math, biology and physical science, and pre-professional courses including introduction to communication disorders, phonetics, language development, anatomy/physiology of speech and hearing, basic audiology, and speech and hearing sciences (see M.A., Au.D., and Ph.D. programs for more details).

We encourage applicants from other disciplines to apply. If you have not met the course requirements stated above, you may be admitted on a conditional basis while completing these requirements. Upon successful completion of these courses, you will be admitted to the graduate program and become eligible for financial support.

#### **Application**

The following materials must be received by February 1 to be considered for admission for the following fall quarter:

- 1 A completed graduate application form.
- **2** Graduate Record Examination (GRE) scores.
- **3** Official transcripts from each postsecondary institution attended (You do not need to submit transcripts of coursework completed at Ohio University).

- 4 Three letters of recommendation from people who are qualified to evaluate your capability for graduate study. Please make certain to include the program you plan to pursue on the form prior to giving the form to the person providing the reference.
- **5** A supplemental information form available from the school or online at the school's Web site,

http://www.ohio.edu/hearingspeech/index.htm.

Submit the following documents to the Office of Graduate Studies, Ohio University, McKee House, Athens OH 45701-2979:

2 copies of the completed Application Form

2 official copies of all transcripts

Graduate Record Examination (GRE) scores

Application fee, non-refundable

Submit the following documents directly to the graduate coordinator, School of Hearing, Speech and Language Sciences, Grover Center W218, Ohio University, Athens OH 45701-2979:

3 letters of recommendation

Supplemental Graduate Student Information Form including Statement of Interests and Goals

International students having English as a second language must also present the following documents directly to the graduate coordinator, School of Hearing, Speech and Language Sciences, Grover Center W218, Ohio University, Athens OH 45701-2979:

**TOEFL** scores

An informal tape-recorded speech sample.

Full and partial assistantships and scholarships are available. All applicants are considered for financial assistance. Except for Ph.D. applicants and special enrollees, students are admitted only for fall term.

#### Master's Program in Speech-Language Pathology

The speech-language pathology program provides the necessary academic and clinical experiences leading to professional certification and state licensure. Teacher licensure is also an available option. Students typically complete the 91-quarter hour program in two years. It includes a planned sequence of core courses, practicum courses, elective opportunities, ongoing clinical experiences, and a choice between one or two externships near the end of the program. Students satisfy all ASHA academic and clinical requirements for certification, including the National Teacher's Examination (Praxis) as part of the degree program.

Two tracks are available. Students choosing Track A may be interested in ongoing research opportunities with faculty, leading to a thesis; or may prefer additional coursework, perhaps providing certificates in areas such as gerontology or teaching English as a second language. Track B requires completion of two externships and may be preferred by students desiring a greater variety of clinical experiences. For example, a student may choose to extern in both medical and school settings or perhaps obtain different experiences in separate medical settings. Externships are available throughout the U.S. and Canada through contractual agreements with certified professionals in those sites.

#### Required core courses:

HSLS 601	Research Methods in Hearing, Speech and Language Sciences (4)
HSLS 603	Neuroscience of Communication (4)
HSLS 613	Developmental and Disordered Phonology (4)
HSLS 617	Disorders of Fluency (4)
HSLS 621	Disorders of Phonation (4)
HSLS 623	Advanced Diagnostic Procedures in Speech and Language Disorders (4)
HSLS 624	Neuromotor Disorders of Speech (4)
HSLS 629	Adult Neurogenic Language Disorders (4)
HSLS 640	Augmentative Communication (4)
HSLS 641	Dysphagia (4)
HSLS 652	Experimental Phonetics (4)
Studente	in Track A will complete the

Students in Track A will complete the above 44 required core hours, 32 elective hours; 12 hours of graded practica, HSLS 635; and 3 hours of

externship, HSLS 636. Students in Track B will complete the above 44 core hours; 24 elective hours; 17 hours of graded practica, HSLS 635; and 6 hours of externship, HSLS 636.

Master's degree applicants who are interested in academic careers and who demonstrate excellent potential for doctoral study may request consideration for admission to a special M.A. to Ph.D. linked arrangement. The M.A. to Ph.D. linked program provides special learning opportunities to extend study through the doctoral level, but does not obligate either you or the School to subsequent doctoral study. Participants in the program also have advantageous funding opportunities. If you would like to be considered for the special admission to the M.A. to Ph.D. linked program, please tell us so and provide a brief description of your interest in doctoral study within the body of the essay that accompanies your completed application materials.

#### **Doctor of Audiology (Au.D.)**

The School of Hearing, Speech and Language Sciences offers a clinical doctorate in audiology (Au.D.) leading to professional certification in audiology.

This clinical doctorate in audiology is designed so that fulltime students typically can complete the 189-quarter hour program in four years. The program includes a planned sequence of required core courses, electives, clinical and research experiences, and concludes with a ninemonth fulltime supervised externship. Students must pass the National Teacher's Examination in Audiology and satisfy the ASHA academic and clinical requirements for certification. Depending on the student's background, additional coursework may be necessary for professional certification and graduation.

There are four targeted areas of study and training in the first three years. First, didactic coursework provides the student with the foundational knowledge and critical thinking skills of the profession. Second, professional clinical training provides an informal setting to apply the knowledge learned in the classroom as well as to discuss clinical issues. Third, the student will have direct patient contact in

formal and closely supervised settings. Clinical experiences evolve in quantity, scope and complexity within a variety of supervised settings on- and off-campus providing experiences more extensive and diverse than those offered by many urban programs. Fourth, guided clinical research experiences are provided in areas such as hearing aid technology and benefits, cochlear implants, psychophysics and signal processing, diagnostic audiology, otoacoustic emissions, and physiological measures of the auditory system.

The fourth and final year of the Au.D. program consists of a full-time supervised externship. Students can select from our large nationwide network of clinical sites. The externships are available with certified professionals contingent on mutual approval by our Coordinator of Clinical Services and outside agencies. By graduation, students will have completed 400 clinical hours in addition to the ninemonth full-time externship, thus exceeding ASHA standards for obtaining professional certification.

In addition to the application requirements discussed above, a personal or phone interview is required. Favorable candidates will be contacted by the School of Hearing, Speech and Language Sciences to coordinate the interview. Personal interviews are encouraged but not required.

<b>Audiology Course Requirements:</b>		
Research Methods in Hearing, Speech and Language Sciences (4)		
Neuroscience of Communication (4)		
Medical Aspects of Auditory Disorders (4)		
Experimental Phonetics I (4)		
Audiological Assessment Differential Diagnosis I (S)		
Audiological Assessment Differential Diagnosis II (S)		
Hearing Aids (4)		
Electrophysiological Assessment of the Auditory System (5)		
Psychoacoustics (4)		
Bioacoustics (4)		
Psychosocial Aspects of Hearing Impairment (4)		
Rehabilitative Audiology (4)		
Pediatric/Educational Audiology (4)		
Clinical Administration in Audiology (4)		
Geriatric Audiology (4)		

HSLS 766 Deaf Culture (3)

H2F2 /0/	sign Language for Audiologists (4)
HSLS 768	Industrial Audiology (4)
HSLS 770	Cochlear Implants (4)
HSLS 774	Hearing Aid Selection (S)
HSLS 77S	Advanced Hearing Aid Technology (4)
HSLS 78S	Balance Function Assessment (5)
EDRE 720°	Educational Statistics (5)

HELE 767 Sign Language for Audiologists (A)

Students will complete at least 4 quarters (approximately 11 hours) of HSLS 63SA and 3 quarters (approximately 7 hours) of HSLS 63SB during their first year. During the second and third years, students will complete 6 quarters (approximately 18 hours) of HSLS 735A and 6 quarters (approximately 12 hours) of HSLS 7358. During the summer of the second year, students will complete a full-time externship, HSLS 790, for a minimum of 3 hours. In the third year, students will enroll in a research practicum, HSLS 801 for a minimum of 9 hours. During the fourth year, HSLS 890, a full-time, yearlong externship will be completed for at least 9 hours.

#### **Doctor of Philosophy**

The Doctor of Philosophy degree emphasizes the academic discipline of research. The Ph.D. is granted on evidence that the candidate has achieved a high level of scholarship and proficiency in research. The Ph.D. requires more than successful completion of a prescribed amount of course work. The student's competence, ability to work independently, and to write effectively are established by academic course work. written and oral examinations, and evidence of research success. The School of Hearing, Speech and Language Sciences emphasizes the development of specialized skills consistent with the career aspirations of the candidate, provided that high scholarly expectations are met. While the Ph.D. is essentially a research degree, students are provided opportunities in teaching, with emphasis on course organization, class preparation, active learning methods, and evaluation procedures as important aspects of doctoral preparation. Financial support is often available throughout the course of the degree program.

#### **Admission Policies**

In addition to the application materials discussed above, applicants must submit

a two to three page narrative detailing previous experience and long- and short-term career objectives. Individual interviews with the school director, the graduate coordinator and/or a potential faculty mentor in the student's intended area of study are required. Inperson interviews and campus visitations are highly recommended and in some cases may be required.

The following criteria are used to determine eligibility for admission to doctoral study:

- A record of high scholastic achievement,
- Letters of recommendation substantiating academic and other strengths,
- GRE scores consistent with doctoral academic demands,
- A career plan describing past experiences, reasons for pursuing doctoral study, desired future employment settings, areas of desired professional expertise, and knowledge, skills, and experiences sought during doctoral study.

Students pursuing a Ph.D. in areas related to speech-language pathology, speech science, and/or language science must have a master's degree in communication sciences and disorders or in an academic area that will complement work in the intended area of doctoral study. Students pursuing a Ph.D. in hearing science and/or audiology are not required to have a master's degree.

Once the HSLS Graduate Committee determines that an applicant is eligible for admission, a graduate faculty member must agree to accept the student as his or her advisee. Applicants are admitted once the graduate coordinator has been notified that an appropriate faculty member has agreed to serve as the applicant's academic advisor.

#### **Academic Guidance**

The role of the academic advisor is one of advocacy and mentorship guiding progress toward the doctoral degree. By accepting a student, the advisor is committed to working closely with the student through all aspects of the doctoral program. This entails preparation and

development of the program of study, ongoing guidance and consultation, periodic re-evaluations, cooperative research, assistance in arranging the preliminary and comprehensive examinations (in collaboration with the graduate coordinator), and consultation on the dissertation proposal, writing, and oral defense. In addition to an academic advisor, each doctoral student will have an Academic Guidance Committee, which plays a major role in developing the program of study and evaluating scholarly development.

#### **Degree Requirements**

A minimum of 150 quarter hours of graduate work is necessary to complete the Ph.D. degree subject to the following quidelines:

- All acceptable previously accumulated graduate credit hours, up to a maximum of 51 quarter hours, may count toward the minimum 150 hours.
- At least 54 graduate credit hours must be taken from the School, none of which may have been taken as part of any other degree plan. Twenty-eight or more of the 54 hours must be taken in the major area of study. Some examples of major areas of study include speech perception and production, language science, aphasia and other neurogenic communication disorders, child language development and disorders, hearing aid technology and benefits, signal processing, cochlear implants, psychophysics, and auditory physiology.
- At least 14 graduate credit hours must be taken in each of two minor areas of study. One of the minor areas must be within the School of Hearing, Speech and Language Sciences, and the other in an academic area represented outside the School. Examples of minor areas outside the school include health service administration, gerontology, cognition, neuroscience, and psycholinguistics.
- A minimum of three graduate courses in a statistics sequence.
- A maximum of 24 dissertation hours are allowed as part of the 150 quarter hour requirement.

Passing of the preliminary examination, first-year project requirements, comprehensive examinations, annual evaluations, and all courses in the approved program of study, and successful proposal,

defense and submission of the dissertation are required for the doctoral degree.

A minimum of three quarters of continuous residence on the Athens campus is required according to University doctoral program policies. A minimum of 12 quarters (3 years) of full-time doctoral study is required by the School of Hearing, Speech and Language Sciences.

#### Courses

## Hearing, Speech and Language Sciences (HSLS)

544 Language Disorders in Children (5) Introduction to the study of disorders of language that may be observed in children with mental impairment, hearing impairment, autism, learning disabilities, and specific language impairments. 4 lec. F, Sp.Y.

## 571 Aural Rehabilitation (S) Differential diagnosis of children with suspected auditory disorders. Basic remedial procedures employed with hearing disabled. Practice in planning lessons in speech reading and auditory

**S78 Sign Language (4)** Instruction in manual sign language systems used by the deaf: vocabulary, encoding, and decoding signs for purposes of communication emphasized. Not open to HSLS majors. 4 lec. *F, W, Su; Y.* 

S80 Advanced Manual Communication (4)
Basic instruction and practice in finger spelling
and signing used by and for deaf and hard of
hearing. 4 lec. Sp, Su; Y.

#### 585 Sign Language I (4)

training. S lec. W; Y.

Basic introduction to sign language, including finger spelling, number concepts, and encoding and decoding of sign. 4 lec.

#### S86 Sign Language II (4)

Prereq: HSLS S8S. Intermediate instruction and practice in manual communication, with emphasis on interactive signing. Includes introduction to American Sign Language. 4 lec.

#### S87 Sign Language III (4)

Prereq: HSLS 586. Advanced instruction and practice in manual communication, with emphasis on interactive signing. 4 lec.

#### 600 The Communicatively Impaired Elderly Patient: Clinical Assessment and Intervention (4)

Clinical assessment of the communication disorders confronting elderly individuals, as well as the development of viable intervention strategies designed to enhance their rehabilitation. Not open to HSLS majors. 4 lec.  $F_i$  Y.

## Research Methods in Hearing, Speech and Language Sciences (4)

Introduction to research and scientific methods in communication sciences and disorders. Discussion of types of research, design options, and methodological strategies. Reading and evaluation of current research. 4 lec. F; Y.

#### 602 Advanced Research Methods in Hearing, Speech and Language Sciences (4) Research methodologies and critical examination of existing research. 4 lec. D.

603 Neuroscience of Communication (4) Study of neuroanatomy with emphasis on speech, language, and auditory processes.

Detailed instruction in anatomical structures of respiration, phonation, articulation, and audition as related to central nervous system. Morphological instruction with respect to central nervous system, peripheral nervous system, and autonomic nervous system is also included. 4 lec. F: Y.

#### 609 Communicative Disorders

in Infants and Young Children (4)
Prereq: S44. In-depth study of language
assessment intervention strategies for children
exhibiting disorders of language. Areas of therapy considered include development of prelinguistic skills, pragmatic as well as semantic
and grammatical aspects of comprehension and
production. 4 lec. W: Y.

## 613 Developmental and Disordered Phonology (4)

Study of phonological problems associated with overall language disorders. Emphasis on theories of phonological acquisition, stages of development, description of deviant systems, methods of data collection and analysis, and suggestions for remediation. 4 lec. *F; Y.* 

#### 614 Orofacial Disorders (4)

Discussion of diagnostic and rehabilitation procedures used with individuals having various orofacial disorders including cleft lip and palate. 4 lec. W; Y.

#### 617 Disorders of Fluency (4)

Stuttering related to theory, research, and therapy. Students select and develop area of interest. 4 lec. W/ Y.

#### 619 Language Disorders in School-Age Children (4)

Prereq: S44. Intervention strategies and methods of service delivery in working with school-age children who have language learning difficulties. Focus on language skills necessary for children's social and academic success by means of collaboration with other professionals in the school setting. 4 lec. Su; Y.

#### 621 Disorders of Phonation (4)

Review of anatomy and normal physiology of vocal mechanism. Organic and functional voice problems and related therapy. Research problems in diagnosis and therapy. 4 lec. F; Y.

## 623 Advanced Diagnostic Procedures in Speech and Language Disorders (4)

Study of theory and practice pertaining to the diagnostic process, including topics on models of diagnosis, family-centered assessment, multicultural issues, tools and methods, as well as assessment in selected areas of disorders. 4 lec. Sp; Y.

624 Neuromotor Disorders of Speech (4) In-depth study of nature and habilitation of speech disorders of organic etiology. Primary focus on articulation disorders resulting from structural lesions, muscle in-coordination, and weakness. 4 lec. W; Y.

#### 626 Language Problems of the Developmentally Disabled (4)

Evaluating level of language development of children who are developmentally disabled. Techniques for assisting children with developmental disabilities to develop language. 4 lec. D.

627 Medical Aspects of Auditory Disorders (4) Discussion of medical and surgical treatments for various speech and hearing disorders. Readings in medical literature and familiarization with terminology and philosophies of treatment. 4 lec. Sp; Y:

#### 629 Adult Language Disorders (4)

Theory, etiology, diagnostics, treatment methods, and service delivery issues related to adult neurogenic language disorders. Includes study of aphasia, dyslexia, dysgraphia, right hemisphere deficits, frontal lobe syndromes, traumatic brain injury, and dementia. 4 lec. W; Y.

#### 630 Cerebral Palsy (3)

Cerebral palsy, etiologies, related problems; theories and procedures for habilitation. 3 lec.D.

#### Supervision in Communication Disorders (4)

Preparation of advanced students for employment in teacher education programs and service centers. Individual assignments and specific experience in supervision of diagnostics, therapy, and research, plus administrative supervision. 4 lec. D.

635 Practicum in Diagnosis and Therapy (1-15) Diagnosis, planning of therapy, therapy experience. One staff meeting per week. May be repeated. F, W, Sp, Su; Y.

635A Audiology Practicum I (1-15)

Experience in audiology diagnosis and aural rehabilitation in on-campus clinical and off-campus settings. One class meeting per week plus clinical assignments. May be repeated. F, W, Sp, Su; Y.

#### 635B Professional Clinical Training in Audiology I (1-7)

Prereq: 635A concurrent. Designed to bridge didactic coursework and clinical experience. Lecture, practice, experimentation, and student presentations. Topics coincide with courses. F, W, Sp, Su; Y.

Clinical Externship (3-15)

Full-time placement for a period of 10 weeks at an off-campus site (clinic, hospital or other medical facility, private practice, or in a school setting). Students gain experience under supervision of a certified speech-language pathologist or audiologist. Students register for 3 credit hours to meet graduate degree requirements. Sp, Su; Y.

637 Student Teaching Seminar (3) Prereq: concurrent with student teaching. Methods, organization, and implementation of public school speech and hearing programs. 3 lec. Sp, Su; Y.

640 Augmentative Communication (4) 5tudy of the nature of augmentative communication and assistive listening systems. Development of skills in the application of augmentative communication to communication disorders in adults and children. Hands-on experience with microprocessor-based technology. 4 lec. F; Y.

#### 641 Dysphagia (4)

Basic knowledge of the nature of normal and deviant swallowing disorders due to neurological and structural impairments. Major topics include assessment and management of the wide range of swallowing disorders managed by the speechlanguage pathologist. 4 lec. W; Y.

#### Microcomputer Applications in Communication Disorders (4)

Students become computer literate with two computer systems, knowledgeable regarding current and future applications of microcomputers in the communication disorder professions, and skilled with representative software applications. 3 lec., 2 lab. D.

Administration of Public School 5peech/Language Programs (4)

Prereq: major. Discussion of issues involving administration and implementation of speech and language programs in public school system. Identification of legislation and procedural guidelines for programming; development of administrative, diagnostic, and therapeutic strategies for schools; and discussion of teacher and parent programming. Prerequisite to student teaching. 4 lec. W; Y.

#### Multicultural Issues in Communicative Disorders (4)

Introduction to study of social dialects; problems and controversies surrounding this issue. Training in recognition of dialectal variations and in teaching

standard English to speakers of other dialects. 4 lec.

652 Experimental Phonetics I (4)

Acoustic properties of speech signals and study of speech production. 4 lec. Sp; Y.

#### 653 Experimental Phonetics II (4) Prereg: 652. Acoustical and physiological phonetics relating to speech perception. 4 lec.

#### Calibration of Audiometric Instrumentation (2)

Instrumentation and procedures used in audiometric calibration, 2 lec.

667 Advanced Hearing Science (4) Advanced discussion of physiological and psychological acoustics.

#### Audiology Procedures for Speech-Language Pathologists (4)

Imparts knowledge and skill to perform audiological procedures that are within the A5HA specified scope-of-practice for speechlanguage pathologists, including hearing and tympanometry screening, audiogram interpretation, impact of hearing loss on communication, central auditory processing, hearing aid troubleshooting, and making appropriate referrals. Emphasis on practical experience through classroom activities, laboratory experiences and review of case studies. 4 lec. W; Y.

#### 673A Audiological Assessment Differential Diagnosis I (5)

Presents advanced audiological procedures for the differential diagnosis of conductive and cochlear auditory disorders. Lab provides handson experience with current test protocols and state-of-the-art equipment. 4 lec, 2 lab. F; Y.

#### 673B Audiological Assessment Differential Diagnosis II (5)

Prereq: 673A. Presents advanced audiological procedures for the differential diagnosis of retrocochlear and central auditory disorders. Lab provides hands-on experience with current test protocols. 4 lec, 2 lab. W; Y.

#### 674A Hearing Aids (4)

Hearing aid components, electroacoustical parameters of hearing aids, signal processing systems, and earmold technology assistive listening devices. W; Y.

#### 675A Electrophysiological Assessment of the Auditory System (5)

Prereq: 673A. Electrophysiological measurements applied to human auditory system focusing on auditory evoked potentials. 4 lec., 2 lab. Sp; Y.

#### 676 Psychoacoustics (4)

Prereq: 6 hrs audiology above 600 level. Overview of classical and contemporary psychophysical methods, physics of sound, excitation of cochlea and auditory nerve, frequency analysis, pitch perception, nonlinear distortion, loudness, frequency, and intensity discrimination.4 lec. W; Y.

#### 677 Bioacoustics (4)

Ear as transducer and analyzer; electrophysiological and mechanical properties of ear. 4 lec. F; Y.

#### 67BA 5eminar in Audiology (1-4)

Current problems and areas of research. Individual reading projects and seminar reports. F, W, Sp, Su; D.

694 Directed Study and Research (1-15) Prereq: perm. May be repeated. F, W, Sp, Su; D

#### 695 Thesis (1-15)

Prereq: perm. F, W, Sp, Su; D.

#### Theories in Language Acquisition and Behavior (4)

Language and cognitive development, verbal learning, and structural properties of speech. 4 lec. Sp; Y. 725 Seminar in Clinic Administration (1-4) Organization and administration of clinical and academic programs in speech-language pathology and audiology. F, W, Sp, Su; D.

#### 731 Seminar in Speech-Language Pathology (4-5)

Prereq: perm. Current literature and recent research. Topic changes each quarter. May be repeated. F, W, Sp, Su; D.

733 Professional Training Seminar (1–5) Special topics, changed each offering. Development of special interest areas and innovative procedures. May be repeated. F, W, Sp, Su; D.

735A Audiology Practicum II (1-15)

Prereg: Three quarters of HSLS 635A and 635B. Experience in audiological diagnosis through direct patient contact, hearing aids, and aural rehabilitation in on-campus and off-campus settings. F, W, Sp, Su; Y.

#### 735B Professional Clinical Training in Audiology II (2-15)

Prereq: HSLS 735A concurrent. Designed to bridge didactic coursework and clinical experience in the second and third years of the Au.D. program. Lecture, practice, experimentation, and student presentations. Topics coincide with courses, F. W. Sp., Su; Y.

755 Seminar in Speech Science (1-4) Prereq: perm. Topics in speech science and related areas; required papers. D.

756 Seminar in Research Problems (1-4) Prereg: perm. Organization and preparation of research in scholarly form. Analysis and evaluation of research writing in various areas. Required application of principles to seminar projects. F, W, Sp, Su; D.

#### Psychosocial Aspects of Hearing Impairment (4)

Prepares audiologists/speech pathologists to better understand semantics of deafness as well as alternate modes of communication as used by those who are hearing impaired. 4 lec. W; Y.

762 Rehabilitative Audiology (4) Prepares audiologists to structure and execute programs of (re)habilitation for hearing impaired in clinical and/or educational settings. 4 lec. F; Y.

763 Pediatric/Educational Audiology (4) Audiometric evaluation of infants and children, including behavioral and electrophysiological techniques. Audiological services in schools discussed, including screening procedures; services to children with hearing impairments; working with other professionals, teachers, and parents; academic programming; and administrative organization. Discussion of federal and state legislation pertaining to children with hearing impairment in schools. 4 lec. F; Y.

Clinical Administration in Audiology (4) Leadership, management, and clinical supervision of an audiological clinic. 4 lec. Sp; Y.

765 Geriatric Audiology (4)

Prereq: HSL5 627, 673B, 762. State-of-the-art evaluation and management of hearing loss in the geriatric patient. Emphasis on reducing the degree to which hearing loss impedes an individual's independence in daily living activities. 4 lec. W; Y.

#### 766 Deaf Culture (3)

Focus on issues within the hearing impaired community including the meanings of "Deaf" versus "deaf," structure of deaf communities, and interpreting sign language. 3 lec. F; Y.

767 Sign Language for Audiologists (4) Various communication language systems used by the deaf. Gain a base vocabulary designed to enable effective communication with manual communication users in clinical situations. 4 lec. F; Y.

#### 768 Industrial Audiology (4)

Information about the adverse effects of noise on hearing, the assessment of the environment for hazardous conditions, Occupational Safety and Health Administration (OSHA) regulations on noise exposure, and the implementation of a hearing conservation program as prescribed by the National Institute for Occupational Safety and Health (NIOSH). 4 lec. *Sp; Y.* 

#### 770 Cochlear Implants (4)

Prereq: 603, 675A, 676, 677. Neurobiological basis for cochlear implants, speech processing techniques, candidacy for implants, post operative management, and outcomes assessment. 3 lec., 2 lab. W; Y.

774 Hearing Aid Selection (5) Prereq: 674. Clinical hearing aid selection and verification procedures. 4 lec., 2 lab. F; Y.

775 Advanced Hearing Aid Technology 4
Prereq: 774. Advanced topics in hearing aid
technology including compression, noise reduction
strategies, directional microphone, class amplification
technology, understanding performance of the
damaged auditory system and how advanced signal
processing strategies might be used to compensate
for these deficits. 3 lec., 2 lab. W; Y.

785 Balance Function Assessment (5) Prereq: 603, 627. Assessment of balance function with emphasis on ENG, rotary chair, and platform posturography. 4 lec., 2 lab. *Sp; Y.* 

790 Clinical Externship in Audiology (3–15) Experience in hearing testing, fitting hearing aids, diagnostic procedures related to hearing and balance, writing clinical reports, maintaining clinical facilities and interacting with other professionals. F. W. So., Su. Y.

794 Directed Study and Research (1–15)
Prereq: perm. Final product reviewed by faculty committee. May be repeated. F. W. Sp., Su; D.

801 Research Practicum in Audiology (1–15) Prereq: 601 or concurrent. Research training experience in which student works closely with faculty in their research labs. Students collaborate on ongoing research and may progress to designing and implementing their own projects. Three-quarter experience culminates in a research portfolio as well as a presentation. F, W, Sp, Su; Y.

890 Full-time Audiology Externship (1–15) Prereq: 3 quarters H5L5 635A, 6 quarters H5L5 735A. Full-time supervised externship for three quarters, located nationwide. F, W, Sp, Su; Y.

895 Dissertation (1–15, max 24) Prereq: perm. *F, W, Sp, Su; D.* 

# School of Human and Consumer Sciences

http://www.ohio.edu/humanandconsumer/

The School of Human and Consumer Sciences offers master's programs with concentrations in early childhood education, family studies, and food and nutrition. Graduate courses in retail merchandising and interior architecture are also available.

To be awarded the Master of Science degree, you must earn a minimum of 45 hours if you select the thesis option or 50 quarter hours if a graduate project option is selected. You are required to have an approved program of study in your file by the end of the first quarter of enrollment. Your graduate program is planned by you and your advisor, taking into consideration your undergraduate preparation and professional goals.

The maximum time allowed between the date that you first initiate graduate study toward the master's degree and the date that you complete the requirements for the degree is six calendar years. You may transfer a maximum of 12 quarter hours of graduate credit from an accredited university, providing the credit to be transferred has been designated graduate credit at the institution where taken, is letter graded B or better, was earned in the past five years, was applicable toward an advanced degree at the institution where taken, and is approved by your advisor and graduate coordinator. Credit for courses taken by correspondence cannot be accepted toward the required minimum hours.

#### **Eligibility to Apply**

You must meet the following requirements to be considered for unconditional admission to the graduate program in the School of Human and Consumer Sciences:

- **1** Earned bachelor's from an accredited college or university.
- **2** Minimum overall undergraduate grade-point average (g.p.a.) of 2.7 on a 4.0 scale on last 90 quarter hours or last 60 semester hours.
- **3** Satisfactory Graduate Record Examination (GRE) scores.
- 4 A minimum of 20 quarter hours or 13 semester hours of undergraduate preparation in the specific major in which you wish to study or in a closely related area.

If you do not meet the above standards, you may be admitted on a conditional basis and informed of the conditions you must meet before being accepted unconditionally. These courses may or

may not apply toward your degree. If you are admitted on a conditional basis, you are not eligible for financial assistance.

#### **Application**

The following materials must be received before your application can be considered for admission:

- 1 Graduate Application
- **2** Graduate Record Examination (GRE) scores.
- **3** Official transcripts from each postsecondary institution attended (transcripts of coursework completed at Ohio University do not need to be submitted).
- **4** A cover letter of application briefly stating your intent to apply for admission and describing your goals and reasons for applying to graduate study in your specified area. Include dates for projected entry, completion of undergraduate work, and any other information you believe to be necessary for full consideration of you application.
- **5** A résumé, including your educational background and professional work experience.
- **6** A statement of goals and autobiography (3-5 double-spaced typed pages), which serves as a writing sample and helps to convey to the Graduate Committee a sense of who you are, what your experiences have been, and how these factors relate to your desire to pursue a graduate degree within the School of Human and Consumer Sciences. Be sure to include your goals for graduate study, how your goals for study relate to what you plan to do following graduation, what research interests you may have, and why you want to study in this school.
- 7 Three letters of recommendation from people who are qualified to evaluate your capability for graduate study. Please make certain to include the program or major you plan to pursue on the form prior to giving it to the person providing the reference.

Submit your completed application, GRE scores, transcripts, and application fee to the Office of Graduate Studies, Ohio University, McKee House, Athens OH 45701-2979.

The cover letter of application, résumé, statement of goals and autobiography, and letters of recommendation should be sent directly to the graduate coordinator, School of Human and Consumer Sciences, Ohio University, Grover Center W324, Athens, OH 45701-2979.

While applications for admission are accepted during all quarters, it is recommended that applications for both admission and financial aid for the following year be received by March 1. International students must also present TOEFL scores. Financial assistance, such as assistantships, are available.

## Early Childhood Education and Family Studies

The Early Childhood Education program offers professionals an opportunity to deepen their study of young children, birth through age eight. The program prepares you to work with children and families in a diverse learning environments including public schools, childcare and child development settings, social service agencies, and crisis management. Your individual Program of Study is developed with your advisor, based on your goals and experiential needs. You may select either the thesis or graduate project option.

The Family Studies program prepares individuals to work with children. adolescents, adults, couples, and families, in a wide range of employment settings, both in academia and in human services. Academically, the program takes a lifespan approach to individual and family development that is multidisciplinary, systemic, and research-based with a focus on integrating the latest developments in theory and practice into a personal and professional framework. The Program of Study is intended to be highly flexible, accommodating current practitioners who wish to enhance their skills and knowledge base, and new professionals who are considering an academic career, or work in specialized areas. Examples of these areas and special populations include gerontology, mental health, substance abuse, family development, children's services, hospital services, advocacy for special populations, policy creation and implementation, and

programs that foster the development of strong and enriching relationships over the lifespan. Together with your advisor, you will develop a Program of Study reflective of your experiences and professional goals. You may select either the thesis or graduate project option.

#### **Program Requirements**

Requirements for early childhood education or family studies with the thesis option are:

- 1 Minimum of 45 hours
- 2 Minimum of 22 hours in major and research

#### Required Courses:

HCCF 664	Advanced Child Development (5)
HCCF 674	Advanced Family Development (5)
HCGE 626	5eminar in Human and Consumer 5ciences (2)
HCGE 692	Research (4)
HCGE 695	Thesis* (5)
EDRE 501 or PSY 520 or EDRE 720	introduction to Research Methods Elementary Statistics Education Statistics

\*You are encouraged to select a topic for your thesis in an area of interest shared by you and your advisor.

**3** Minimum of 12 hours in approved minor

Requirements for early childhood education or family studies with the graduate project option are:

- 1 Minimum of 50 hours
- 2 Minimum of 28 hours in major and research

#### Required Courses:

-	
HCCF 664	Advanced Child Development (S)
HCCF 674	Advanced Family Development (S)
HCGE 626	Seminar in Human and Consumer Sciences (2)
HCGE 692	Research (4)
EDRE 501 or PSY 520	introduction to Research Methods Elementary Statistics

\*You are encouraged to select a topic for your thesis in an area of interest shared by you and your advisor.

**3** Minimum of 12 hours in approved minor

#### **Food and Nutrition**

or EDRE 720 Education Statistics

Our master's program offers a multidisciplinary approach to the study of

food and nutrition. You will take required core courses in food and nutrition and then take approved courses in a minor. Recommended minors include consumer food, food education, community nutrition and health promotion, long term care, and sports and fitness. However, you can also design a unique program to fulfill the minor requirements. In this case, you would chose from existing graduate courses available at Ohio University and design a program that best compliments your career goals. The versatility of the program makes it suitable to meet the graduate needs of numerous individuals including those with limited food or nutrition undergraduate training, those already with a registered dietetics credential but who wish to obtain an advanced degree, educators who wish to obtain training in food and nutrition, or those who require additional course work in order to apply for a dietetics internship. Graduate students will be encouraged to do multidisciplinary research when appropriate.

#### **Program Requirements**

Requirements for food and nutrition with thesis option:

- 1 Minimum of 45 hours
- **2** Minimum of 28 hours in major/research area

#### Required Courses:

HCFN 532	Research Design and Methods in Nutrition (3)
HCFN 650	Diet and Chronic Disease (4)
HCFN	Elective (3-4)
HCGE S91B	Seminar in Food and Nutrition (2)
HCGE 626	Seminar in Human and Consumer Sciences (2)
HCGE 692	Research (4)
HCGE 695*	Thesis
P5Y 520 or EDRE 720	Elementary Statistics Education Statistics
	uraged to select a topic for your

\*You are encouraged to select a topic for your thesis in an area of interest shared by you and your advisor.

**3** Minimum of 16 hours in approved minor (see listing of pre-approved minors below)

Requirements for food and nutrition with graduate project option:

- 1 Minimum of 50 hours
- 2 Minimum of 23 hours in major/research area

#### Required Courses:

HCFN S32 Research Design and Methods in Nutrition (3) **HCFN 650** Diet and Chronic Disease (4) Elective (3-4) **HCFN** HCGE 5918 Seminar in Food and Nutrition (2) Seminar in Human and Consumer HCGE 626 Sciences (2) HCGE 692 Research (4) PSY 520 Elementary Statistics or EDRE 720 **Education Statistics** 

3 Minimum of 26 hours in approved minor (see listing of pre-approved minors below)

#### **Pre-approved Minors**

Consumer Food—for food service or hospitality managers that wish to increase their knowledge in food and nutrition.

#### Required Courses:

MKT, HCFN, HCGE

HCFN 522	Experimental Foods (4)
HCFN 530	Food Sanitation and Safety (2
MKT 501	Marketing Principles (4)
MKT 544	Consumer Behavior (4)
Regardless of thesis or project option, select 2–13 credits of approved graduate electives i	

Foods Education—to advance the study of food and nutrition education to individuals with already established careers in dietetics, K-12 education, medical education, nursing/other allied health disciplines, health administration, public health, and food industry professionals.

#### Required Courses:

HCFN 522	Experimental Foods (4)
HCFN 533	Food Safety and Sanitation (2)
HCCF 664	Advanced Child Development (5)
or HCCF 674	Advanced Family Development (5)

Regardless of thesis or project option, select 5-16 credits of approved graduate HCFN, HCGE, **HCCF** electives

#### Community Nutrition and Health Promotion—will prepare graduates to practice in a community agency, worksite

wellness program, or related setting.

#### Required Courses:

HLTH 530	Worksite Health Promotion (4)
HLTH 607	Health Promotion and Health Behavior (4)
HLTH 608	Health Policy (4)
HLTH 610	Program Evaluation and Assessment in Health Care (5)

If graduate project option, select 9-10 credits of approved electives

Long-Term Care—for the nutrition or health professional seeking to gain knowledge and skills related to working with the elderly.

Complete requirements for the Gerontology Certificate (23)

Sports and Fitness—for the nutrition professional needing more training in exercise and fitness or for the fitness professional who needs more advanced training in nutrition.

#### Required Courses:

HCFN 660	Nutrition for Sports and Fitness (4)
PESS 514	Exercise Physiology (4)
PESS 515	Exercise Physiology Lab (3)
PESS 616	Sports Psychology and Adult Fitness (4)
PESS 617	Exercise Prescription (3)
If graduate project option, select 9–10 credits of approved electives	

#### Specialized Studies

Create an approved interdisciplinary program that incorporates graduate courses to meet your career goals. Requires 16-27 credit hours of approved coursework.

#### Courses

#### Child and Family Studies (HCCF)

#### Adult Education in Human and Consumer Sciences (4)

Organizational procedures, curriculum materials, and methods of conducting adult education in various settings. 4 lec. W; A.

#### 552 Home Management for the Disabled Homemaker (4)

Home management problems faced by disabled individuals and creative methods and materials to use in solving those problems. 4 lec. D.

#### Functional Assessment in Independent Living (3)

Identification of the functional limitations experienced by disabled clients in completing household tasks, methods for assessing functional limitations, and creative strategies and resources to increase functioning in the performance of household tasks. 3 lec. D.

#### 562A Diversity in Families (4)

Analysis of emerging diverse marriage, couple, and family life patterns in American society, examining diversity of family structure. race/ethnicity, socio-economic class, gender, sexual orientation, and age. 4 lec. F; Y.

#### 562B Parenthood (4)

Analysis of dynamics of parenthood. 4 lec. F; Y.

#### 562C Middle Childhood (4)

Interpretation of developmental tasks of middle childhood years as they reflect and influence family guidance and transmission of values. 4 lec. W; Y.

#### 562E Youth Identity Crisis (4)

Analysis of identity crisis in terms of its psychological and interpersonal aspects of adolescence. 4 lec. 5p; Y.

#### 562F Family Ties and Aging (4)

Focuses on older persons in the context of family Ife, including historical perspectives, demographic trends, theoretical frameworks, intimate relationships, intergenerational relationships, and life course transitions, particular attention is given to the multiple contexts affecting and being affected by families in middle to later life. 4 lec. Sp, Y.

563 Administration in Early Childhood (3) Problems in organizing and administering preschools, play groups, and Head Start programs. 3 lec. F, W, Sp; Y.

#### 565 Parent Education (4)

Supervised experience in organizing, formulating, conducting, and evaluating discussion groups, classes, programs, and individual conferences for parents and youth leaders. 4 lec. Y.

#### 571 Family Life Education (4)

History, philosophy, and objectives of family life education, including current trends. Selected fundamental educational problems explored. Examination of various dimensions of teacher's or leader's role and critical appraisal of student's professional competency to teach classes in family relations. 4 lec. W; A.

#### 580 Death and Dying (4)

Examination of why we fear death, how it affects family relationships, source of guilt feelings, and related issues; synthesis of multiple dimensions of death and dying. 4 lec. 5p; Y.

664 Advanced Child Development (5) Theories and principles of child development as advanced by various disciplines. 5 lec. F; Y.

#### Special Studies in Human Development (2-5)

In-depth study in selected area. F, W, Sp, Su; D.

674 Advanced Family Development (5) Specific conceptual schemes of major theorists in areas relative to broad issues of philosophy and values regarding the family. Consideration of differential amenability of various areas of procedures to problems of family development. 5 lec. Sp; Y.

#### Introduction to Principles of Family Consulting (4)

An analysis of the theoretical basis of family consulting and the practical challenges of working with couples and families. Specific foci include prevention, intervention, and techniques at both familial and systemic levels to help couples and families resolve problems, build on strengths, and integrate personal and familial goals. 4 lec. D.

679 Special Studies in Family Relations (2-5) In-depth study in selected area. F, W, Sp, Su; D.

#### 689 Self, Aging, and Society (4)

Synthesis of issues inherent in biological theories, psychological aspects, sociological perspectives, health care aspects, and public policy issues in aging within the context of self and society. 4 lec. D.

#### 690 Thanatology (4)

Synthesizes the components inherent in the current philosophical and religious views and beliefs, the psychological and clinical dimensions, the sociological factors, and the ethical and moral issues of death in the context of defining and coping with death. 4 lec. D.

#### Food and Nutrition (HCFN)

#### 522 Experimental Foods (4)

Factors that affect results of different methods used in food preparation. Research techniques using subjective and objective evaluation. 3 lec., 3 lab. Sp; Y.

524 Nutrition Treatment in Outpatient Care (4) Nutrition counseling and process skills (including

assessment, treatment, evaluation, and documentation) for ambulatory patients requiring dietary modification to prevent and/or treat overweight/obesity, hypertension, hyperlipidemia, diabetes mellitus, and cancer. 4 lec.

#### 526 World View of Nutrition (3)

Survey of world food situation with consideration of environmental, cultural, governmental, and economic factors that relate to food production and consumption. Evaluation of effects of these factors in meeting dietary needs. 3 lec. W; Y.

#### 528 Advanced Nutrition (4)

Prereg: CHEM 589. Biochemical and physiological processes in nourishment of body. Determination of nutrient needs and evaluation of nutritional status. 4 lec. F; Y.

#### 529 Community Nutrition (3)

Prereg: 528. Assessment of community nutrition needs. Survey of agencies and programs providing services. Role of nutritionist, Methods and resources for nutrition education, legislation. 3 lec. Sp; Y.

#### 530 Therapeutic Nutrition (4)

Prereq: 528, CHEM 589. Use of dietary modification in prevention and treatment of disease. Nutritional assessment; problems in nutritional care. 4 lec. W; Y.

#### 532 Research Design and Methods in Nutrition (3)

Prereg: 528 and PSY 520 or equivalent. Overview of research design and methodology with practice application to the fields of nutrition and dietetics. A group research project will be carried out. 2 lec; 3 lab. W; Y.

#### 533 Food Sanitation and Safety (2)

Applied food service sanitation procedures in the food handling functions of purchasing, storage, preparation, and service. Upon completion, students will be eligible for National Certification in Food Safety. 2 lec. W; A.

#### 534 Quantity Food Production (4)

Food preparation principles applied to large quantity food production, menu planning, and service in institutions. Experience in residence halls. 2 lec., 4 lab. F; Y.

#### 535 Food Service Purchasing (4)

Prereg: 534. Managerial approach to the purchasing and selection of a wide variety of food, beverage, and nonfood items. Emphasis on purchasing the optimal amount at the optimal price. 4 lec. W; A.

#### 537 Food Service Systems I (5)

Prereg: 534. Introduction to tools and functions of management in food service with emphasis on organizational structure, catering, staffing, work methods, human relations skills, sanitation, and safety. 4 lec., 3 lab. W; Y.

#### 538 Food Service Systems II (4)

Prereq: 534. Institutional food purchasing, kitchen layout design, equipment selection, facilities management, and cost control. 4 lec. Sp; Y.

#### 539 International Cuisine (4)

Prereg: 534, 537. Principles of international cuisine, advanced food preparation, and research of areas of specific interest. 2 lec., 4 lab. Sp; A.

#### Field Experience-Food and Nutrition (5)

Clinical experience through cooperation with hospitals, institutions, community agencies, or business organizations. F, W, Sp, Su; D.

#### 610 Maternal and Child Nutrition (4)

Prereq: 529. Focuses on maternal and child nutritional needs and the symbiotic relationship between the two. The physiology of pregnancy and lactation and other issues that influence maternal nutrition and well-being are discussed. Child nutrition covers growth, development, and nutrient needs of infants and children (under age five). Environmental and policy issues that affect the nutritional needs of these two groups also addressed, 4 lec.

#### 624 Advanced Food Science (3-4)

Chemical and physical behavior of basic food constituents and their influence on characteristics and nutritive value of foods. 1-2 lec., 2-6 lab. D.

#### Readings in Food and Nutrition (2-4 max 8)

Critical review of current literature with emphasis on modern theory and practice in nutrition and food preparation, D.

#### Methods of Food and Nutrition Investigation (3-4, max 8)

Prerea: 531 or 624. D.

627 Studies in Food and Nutrition (3-5, max 5) Prereg: 522 or 531. D.

#### Studies in the Science of Nutrition (3-4, max 8)

Prereg: 528, 530, CHEM 589. Nutrition as related to physiological and metabolic processes. Individual research project. D.

#### 650 Diet and Chronic Disease (4)

Prereg: 528, 530, Examination of data associating dietary patterns with certain chronic diseases, such as atherosclerotic cardiovascular disease, hypertension, cancer, and obesity. 4 lec.

#### 660 Nutrition for Sports and Fitness (4)

Exploration of current information available in scientific literature concerning interrelationships between dietary adequacy and physical performance, 4 lec. W: Y.

#### Human and Consumer Sciences **General Education (HCGE)**

#### 543 Vocational Home Economics (4)

History and philosophy of vocational home economics education. Contemporary trends, methods, sources of materials, and evaluation, 4 lec.

#### Human and Consumer Sciences Seminar, Workshop, and Short Course in International Service (2-4)

#### 579A-K Workshop in Human and Consumer 5ciences (1-6, max 6)

Prereg: teaching experience. Special workshops on topics related to human and consumer sciences: (A) Home Economics Education, (8) Clothing and Textiles, (C) Food and Nutrition, (D) Child Development, (E) Consumer Economics, (F) Home Furnishings, (G) Home Management, (H) Household Equipment, (I) School Lunch Management, (K) Family Life Education.

#### 590A-D Independent Study (1–5, max 8)

Independent advanced study under direction of faculty member in area of specialization: (A) Consumer Service and Education, (8) Human Development and Family Ecology, (C) Human Environment and Design, (D) Human Nutrition and Food Science.

#### 591A Understanding Play (4)

#### 5918-E Seminar or Short Course in Human and Consumer Sciences (2-4, max 4)

Research and recent developments in area of specialization: 5918 Food and Nutrition, 591C Home Economics Education, 591D Housing and Management, 591E Textiles and Clothing.

#### 591F Research Methods (2-4)

#### 626 Seminar in Human and Consumer Sciences (1-4) Research and recent developments in Human and

Consumer Sciences. Usually taken as two one quarter, one credit hour seminar courses. 1 lec. F, W, Sp; Y.

#### Studies in Household Equipment or Management (2-4, max 4)

#### Supervision in Human and Consumer Sciences (4)

Leadership functions, principles, and practices involved in effective supervision in human and consumer sciences. 4 lec. D.

#### 646 Home Economics in Higher Education (4) Basic philosophy and issues concerning place of

home economics in higher education today. General trends in curriculum offering, teaching practices, evaluation, administration, and research. 4 lec. D.

#### Studies of Home Economics Education (2-4, max 8)

Prereg: Teaching experience in home economics.

#### 692 Research (2-4, max 5)

Independent investigation in one area of home

695 Thesis (1-10, max 5 toward degree)

#### Interior Architecture (HCIA)

#### 530 Cyberspace Design: Construction and Implementation of 3-Dimensional Digital Environments (5)

Exploration and design of 3-dimensional cyberspace environments as related to the discipline of interior architecture. 2 lec, 8 lab. D.

#### History of Furniture and Interior Design I (3)

Study of the history of interiors, furnishings, decorative arts, and architecture of the ancient world, the middle ages, and the gothic, renaissance, French and Beidemeir periods, 3 lec. F: Y.

#### History of Furniture and Interior Design II (3)

Study of the history of interiors, furnishings, decorative arts, and architecture of England (Tudor through Victorian) and America (Early American through Victorian), 3 lec. W: Y.

#### History of Furniture and Interior Design III (3)

Study of the history of interiors, furnishings, decorative arts, and architecture of the twentieth century. 3 lec. Sp; Y.

#### Retail Merchandising (HCRM)

#### 505A History of Costume (4)

Clothing through the ages as reflection of historical period and source for present-day design. 4 lec. W, Sp; Y.

#### 505B History of Textiles (2)

Textiles through the ages as reflection of historical period and source for present-day design. 2 lec. D.

#### 507 Textile and Fashion Industry (4)

Problems confronting buyer of textile products as related to specific manufacturing situations involved. 4 lec. F, W; Y.

#### 515 Flat Pattern (4)

Emphasis on fitting techniques. Use and understanding of commercial patterns. 2 lec., 4 lab. D.

#### 518 Textile Testing (4)

Principles, techniques, and standard testing methods of quality control for textiles, clothing, and interior design. Lab sessions emphasize standard textile testing procedures and research methods. Federal and state laws and codes designed to protect consumers also discussed. 2 lec., 4 lab.

#### 519 Studies in Textile Testing (3)

Individual research and lab testing of problems in advanced textiles. D.

554 Clothing for Persons with Special Needs (3) Various dressing techniques and functional design alternatives available to increase independence of individuals with special needs. Focus on such populations as the elderly, mentally disabled, and temporarily or permanently physically disabled. 3 lec. D.

## 609 Psychological, Social, and Economic Aspects of Clothing (4)

Contemporary uses and roles of textiles and clothing as affected by economic, social, and psychological forces seen in historic perspective. 4 lec. D.

- 612 Advanced Studies in Clothing (2–4, max 4) Advanced problems and techniques in clothing construction. Emphasis on scientific principles of construction and experimental methods and fabrics. *D.*
- 615 Advanced Studies in Textiles (2–4, max 4) Physical and chemical examination of fibers, yarns, and fabrics with emphasis on application of testing techniques as applied to individual textile studies. *D.*

## 617 Readings in Textiles and/or Clothing (2–4, max 4)

Analysis and interpretation of current writings and research with emphasis on new developments and trends. *D*.

## School of Nursing

#### http://www.ohio.edu/nursing/

<u>Please note</u>: The graduate program in School of Nursing is a recent addition to the College of Health and Human Services. The program will commence operations by admitting students for winter quarter of the 2003–2004 academic year. For 2004–2005 and subsequent academic years, the program will admit students for fall quarter. Please check the School of Nursing's Web site for the latest information.

The School of Nursing offers a graduate program leading to the Master of Science in Nursing (M.S.N.) degree. The curriculum will prepare advanced practice nurses who can: provide expert direct client care, teach in a variety of capacities including undergraduate nursing programs, manage agencies that deliver health care, and provide leadership in a variety of nursing and health care services. Graduates will be prepared to work collaboratively with professionals from a variety of disciplines and mobilize resources for care of clients and families, especially those from rural communities. Graduates will be able to identify and implement changes in complex health care delivery systems that enhance the quality and cost-effectiveness of client care.

Students can select a concentration from one of three options: Nurse Administrator, Nurse Educator, and

Family Nurse Practitioner. To be awarded the Master of Science in Nursing degree, you must earn 55 quarter credit hours that includes clinical practica ranging from 200 to 600 hours depending on the track selected.

The maximum time allowed between the date that you first initiate graduate study toward the M.S.N. and the date that you complete the requirements for the degree is six calendar years. The full time M.S.N. program requires six quarters to complete. The M.S.N. program requires prerequisite introductory courses in statistics, management, and research. These courses must be completed with grades of "C" or higher from an accredited undergraduate institution.

The M.S.N. program will admit students with a Bachelor of Science Degree in Nursing (B.S.N.) from an accredited undergraduate institution. Students who are RNs but have earned their bachelor's degrees in other disciplines will be considered for full or conditional admission. Students must have attained an overall g.p.a. of 3.0 out of a possible 4.0. Students may apply to the program prior to completion of the B.S.N., although they will not be accepted into the program until they have completed the B.S.N. degree. One may transfer a maximum of 12 quarter hours of graduate credit from an accredited university, providing the credit to be transferred has been designated graduate credit at the institution where taken, is letter graded B or better, was earned in the past five years, was applicable toward an advanced degree at the institution where taken, and is approved by your advisor and graduate coordinator. Credit for courses taken by correspondence cannot be accepted toward the required minimum hours.

#### **Eligibility**

You must meet the following requirements to be considered for unconditional admission to the graduate program in the School of Nursing graduate program:

- **1** Earned bachelor's degree in nursing from an accredited college or university.
- 2 Minimum overall undergraduate gradepoint average (g.p.a.) of 3.0 on a 4.0 scale.

- **3** Satisfactory completion of undergraduate prerequisites in statistics, management, and research (must obtain a grade of "C" or better).
- 4 Satisfactory Graduate Record Examination (GRE) scores.

If you do not meet the above standards, you may be admitted on a conditional basis and informed of the conditions you must meet for unconditional acceptance. Conditions may or may not be taken for graduate credit and may have to be completed prior to starting M.S.N. coursework. If you are admitted on a conditional basis, you are not eligible for financial assistance.

#### **Application**

The following materials must be received before your application can be considered for admission:

- 1 Graduate application
- **2** Graduate Record Examination (GRE) scores.
- **3** Official transcript(s) from each postsecondary institution attended (transcripts of coursework completed at Ohio University do not need to be submitted).
- 4 A statement of goals and objectives (2-3 double-spaced typed pages), which serves as a writing sample and helps to convey to the Graduate Committee a sense of who you are, what your experiences have been, and how these factors relate to your desire to pursue a graduate degree within the School of Nursing. Be sure to include your goals for graduate study, how your goals for study relate to what you plan to do following graduation, and why you want to study in this school. Also indicate whether you plan to pursue the degree full-time or part-time.
- **5** A résumé, including your educational background and professional work experience.
- 6 Three letters of recommendation from people who are qualified to evaluate your capability for graduate study. Please make certain to include the program and concentration you plan to pursue on the form prior to giving it to the person providing the reference.

Submit your completed application, GRE scores, transcripts, and application fee to the Office of Graduate Studies, Ohio University, McKee House, Athens, OH 45701-2979.

The résumé, statement of goals and objectives, and letters of recommendation should be sent directly to the graduate coordinator, School of Nursing, Ohio University, Grover Center E365, Athens, OH 45701-2979.

Applications for admission are accepted for fall admission. Typically, applications for both admission and financial aid for the next academic year must be received by March 1. International students must also present TOEFL scores and apply by February 1.

#### **Program Requirements**

To earn the Master of Science in Nursing degree, you must satisfactorily complete a minimum of 55 quarter hours of required graduate coursework including all core courses and the specific courses for the major option you select.

#### Required Core Courses (17 hours)

	Roles (3)
NRSE 601	Theoretical Perspectives for Advanced Nursing Roles (3)
NRSE 602	Research and Evaluation in Nursing (4)
NRSE 603	Professional Collaboration in Nursing (3)
HLTH 630	Epidemiology in Health Planning (4)

NRSE 600 Transition to Advanced Nursing

#### Nurse Administrator Required Courses (38 hrs)

NRSE 661 Nursing Administration Strategies (4)

Responsibilities (3)

Nursing Administration Roles and

NRSE 660

NRSE 662	Nursing Informatics (3)
NRSE 663	Nursing Administration Practicum (4)
ACCT 501	Accounting Principles (4)
HLTH 603	Administration of Health Organizations (4)
HLTH 608	Health Policy (4)
HLTH 621	Health Care Finance (4)
HLTH 63S	Human Resource Management within Health Care (4)
	Elective (4)

#### Number Educates Beautiful Courses (20 hours

Nurse Educator Required Courses (38 nrs)		
NRSE 612	Advanced Health Assessment in Nursing (S)	
NRSE 613	Adv. Pharmacology in Nursing (S)	
NRSE 630	Family Health in Nursing (4)	
NRSE 631	Family Resource Management (3)	

NRSE 650	Curriculum Devlpment in Nursing (5)
NRSE 651	Education Strategies in Nursing (S)
NRSE 6S2	Nursing Education Practicum I (4)
NRSE 653	Nursing Education Practicum II (4)

NRSE 682 Nursing Care of Adults (3)

Family Nurse Practitioner (38 hrs)		
NRSE 610	Advanced Pathophysiology in Nursing I (4)	
NRSE 611	Advanced Pathophysiology in Nursing II (4)	
NRSE 612	Advanced Health Assessment in Nursing (S)	
NRSE 613	Adv. Pharmacology in Nursing (S)	
NRSE 630	Family Health in Nursing (4)	
NRSE 681	Nursing Care of Women (3)	
NRSE 682	Nursing Care of Adults (3)	
VRSE 683	Nursing Care of Children (3)	
VRSE 684	Family Nurse Pract. in Practice (3)	
	Elective (4)	

#### Courses

#### Nursing (NRSE)

600 Transition to Advanced Nursing Roles (3) Societal, political, and educational factors upon which nursing discipline is founded. Uses futuristic framework to consider contemporary nursing practice in present health care environment. Explores trends and relationships that impact professional roles. 3 lec.

#### Theoretical Perspectives for Advanced Nursing Roles (3)

Introduces nursing theory development. Explores conceptual models and theories through investigation of elements and functions of theory. Critiques application of nursing practice models and determines research and practice relationships. 3 lec.

Research & Evaluation in Nursing (4) Evaluates published clinical outcomes in nursing research. Utilizes strategies for application of nursing research methods. Analyzes nursing research in a specific concentrated area. 4 lec.

603 Professional Collaboration in Nursing (3) Overview of professional roles and competencies in interdisciplinary collaboration. Focus on chronic illness, health services, community resources, building successful interdisciplinary teams, informatics, technology, collaborating, coordinating tasks, and cultural and ethical diversity from a nursing perspective. 3 lec.

610 Advanced Pathophysiology in Nursing I (4) Analysis of concepts of physiology and pathophysiology and their relationships to nursing interventions across the life span of humans. Examines the integumentary, neurological, gastrointestinal, immune and endocrine systems and specific disease processes. Emphasizes nursing intervention strategies in treatment and prevention of diseases. 4 lec.

611 Advanced Pathophysiology in Nursing II(4) Prereq: 610. Analysis of concepts of physiology

and pathophysiology and their relationships to nursing interventions across the life span of humans. Examines the cardiovascular, respiratory, musculoskeletal, renal, and reproductive systems and specific disease processes. Emphasizes nursing intervention strategies in treatment and prevention of diseases. 4 lec.

612 Advanced Health Assessment in Nursing(5) Advanced nursing assessment of skills necessary for the identification and documentation of normal findings and detection, documentation and referral of abnormal findings. 4 lec, 2 lab.

613 Advanced Pharmacology in Nursing (S) Pharmacology and pharmacotherapy of common illnesses in infants, children, adolescents, and adults. Builds on knowledge of developmental physiology and pathophysiology as basis for pharmacotherapeutic advanced practice nurse management of common acute and chronic illnesses. 5 lec.

630 Family Health in Nursing (4) Examines skills, knowledge, and practices for nursing intervention across developmental stages and the family lifespan. Emphasis is on assessment, intervention, and evaluation of family-focused care from a nursing perspective. Investigates strategies that enhance, maintain, and restore family health. 4 lec.

631 Family Resource Management (3) Prereq: 630 or concurrent. Preparation in meeting the health care needs of diverse family groups. Explores partnerships among nurses, families, and health service providers through collaboration, interdisciplinary practice, diverse agencies, and institutions related to family needs. 3 lec.

650 Curriculum Development in Nursing (5) Curriculum process as it applies to patient/client education, staff development, and nursing education. 5 lec.

651 Education Strategies in Nursing (5) Philosophical and practical issues of delivering educational content in service, clinical, and classroom settings. Addresses knowledge and skills to prepare nurse educators in developing continuing educational programs, lead in staff development, and design patient education materials. 5 lec.

652 Nursing Education Practicum I (4) Prereq: 650, 651. Application of content presented in NRSE 650 and NRSE 651. Faculty and preceptor guided experiences in curriculum development and teaching within a health care facility. 2 lec, 8 lab.

653 Nursing Education Practicum II (4) Prereq: 650, 651. Application of content presented in NRSE 650 and NRSE 651. Faculty and preceptor guided experiences in curriculum development and teaching within a school of nursing. 2 lec, 8 lab.

#### Nursing Administration Roles and Responsibilities (3)

Explores the roles and responsibilities of the nurse administrator. Provides opportunities to identify critical attributes, knowledge, and skills required to fulfill the role of nurse administrator from a theoretical perspective. 3 lec.

661 Nursing Administration Strategies (4) Focuses on roles of nursing administrators who efficiently and effectively use leadership skills to strategically implement valued change within the organizational environment, 4 lec.

#### 662 Nursing Informatics (3)

Integrates nursing science with computer technology and information science to identify, gather, process and manage information. 3 lec.

663 Nursing Administration Practicum (4)
Prereq 661, 662, HLTH 603, 621, 635 or concurrent.
Opportunity to gain knowledge, skills, and
experiences in nursing administration activities and
roles by working with an administrative preceptor
in a health care organizational setting. 1 lec, 20 lab.

#### 681 Nursing Care of Women (3)

Prereq: 610, 611, 612. Specialized nursing knowledge, skills, and experiences related to women's health issues, prenatal and postpartum care, the childbearing cycle, childbirth education, and menopause. Attention to nursing assessment, nursing diagnosis, and nursing intervention relevant to gender based assumptions, historical traditions, and sociopolitical factors affecting health risks. 1 lec, 15 lab.

682 Nursing Care of Adults (3)
Prereq: 610, 611, 612 (NP); 612, 613 (NE).
Specialized nursing knowledge, skills, and experiences related to adult health issues.
Attention to nursing assessment, nursing

Attention to nursing assessment, nursing diagnosis, and nursing intervention relevant to developmental physical and psychosocial stages of the adult. 1 lec, 15 lab.

#### 683 Nursing Care of Children (3)

Prereq: 610, 611, 612. Clinical experience in advanced nursing assessment, nursing diagnosis, and nursing intervention related to the physiological and psychosocial health and wellbeing of children. 1 lec. 15 lab.

684 Family Nurse Practitioner in Practice (3)
Prereq: 681, 682, 683. Application of advanced
nursing assessment skills, pathophysiology concepts,
and pharmacotherapeutics in a clinical care
environment. Emphasizes achieving clinical nursing
competence in the advanced practice nursing roles
with individuals across the lifespan. 1 lec, 15 lab.

## School of Physical Therapy

#### http://www.ohio.edu/phystherapy/

The School of Physical Therapy offers an entry-level doctoral program in physical therapy leading to a Doctor or Physical Therapy (D.P.T.) degree. The program begins in June and extends over a three-calendar-year period. The problem-solving, evidence-based curriculum is designed to prepare competent health care professionals who will be able to employ critical decision-making skills for optimal patient care and utilize critical inquiry for self-assessment, health care and professional issues, evaluation, research, and practice analysis.

Clinical experience is integrated with the didactic and laboratory components throughout the program of study. Part-

time clinical practica are arranged in local clinics (community hospitals, home health agencies, skilled nursing facilities, developmental disabilities centers, and private practices.) Students are supervised by faculty and staff from Ohio University Therapy Associates, the school's faculty practice, and local clinicians. Full-time clinical practica are arranged in clinical facilities located outside of the Athens area. The School of Physical Therapy has agreements with medical centers, general acute hospitals, rehabilitation centers, and specialty clinics in Ohio as well as Arizona, California, Colorado, Florida, Illinois, Indiana, Kentucky, Louisiana, Michigan, Mississippi, New Jersey, New York, North Carolina, Pennsylvania, Tennessee, Texas, Virginia, and West Virginia.

If accepted into the program, you will be responsible for your own transportation to and from clinical sites and for housing and other living expenses during all of your affiliations. You also will be required to: (1) obtain CPR certification; (2) have a physical examination, including evidence of results of a recent TB skin test: (3) provide documentation of current immunization for hepatitis B (or waiver form). Because you may be exposed to infectious diseases during your affiliations, some sites may require proof of immunization for other diseases. In addition, you must purchase name tags and malpractice insurance to be eligible for participation in the clinical practica. Membership in the American Physical Therapy Association and attendance at state and national conferences are strongly encouraged.

#### **Eligibility to Apply**

You must meet the following requirements to be eligible to apply for June admission to the School of Physical Therapy's doctoral program:

- 1 Earned a bachelor's degree from an accredited college or university by the time you begin the physical therapy program in June. The baccalaureate degree may be in any discipline as long as the prerequisites are met. The most direct routes to complete the prerequisites while earning a baccalaureate degree at Ohio University are the following: Biological Sciences Pre-Physical Therapy, Psychology Pre-Physical Therapy, or Exercise Physiology.
- **2** earned a minimum overall grade-point average (g.p.a.) of 3.0 on a 4.0 scale.

3 completed at least 8 of the 12 Life and Physical Sciences prerequisite courses at the time of your application. You must complete the remainder of the math, behavioral, and life/physical science prerequisites during the winter and spring quarters or spring semester before beginning study in the program. Some exceptions may be made if requested in writing and mailed to the Admissions Committee, School of Physical Therapy, Grover Center W290, at the time of application.

## Minimum Prerequisite Course Requirements\*

#### General

PSY 221 Statistics for Beh. Sciences (5)
PSY 273 Child and Adolescent Psych (4)

Plus one additional psychology course (not including PSY 221)

### Mathematics

MATH 163A Intro to Calculus (4)

## Life and Physical Sciences\*\* BIOS 170 Intro to Zoology (S)

BIOS 171 Intro to Zoology (5)
BIOS 301 Human Anatomy (6)
or BIOS 302 Human Anatomy (6)
or BIOS 303 Comp. Vert. Anatomy (6)

8IOS 345, 346 Human Physiology (7)

BIOS 445, 446 Phys. of Exercise (7) or PESS 414, 415 Phys. of Exercise (7)

CHEM 121, 122, 123 Principles of Chemistry (12) or CHEM 151, 152, 153 Fundamntls of Chem (15)

PHYS 201, 202, 203 Intro to Physics (15)\*\*\*

Total 75-78 quarter hours

- \*All prerequisite courses must be passed with a grade of "C" or better.
- \*\*All life and physical science courses must include a laboratory component. You must have a total of 20 quarter hours (14 semester hours) at or above the junior (300) level in anatomy, physiology, and exercise physiology lecture and lab courses.
- \*\*\*Physics 203 is strongly recommended for 2004 applicants and required for 2005 applicants. An intermediate or advanced human anatomy and a basic neuroscience course are strongly recommended.

#### **Application**

The following materials must be received before your application can be considered for admission:

1 Obtain a Physical Therapy Graduate Program admission packet from the School of Physical Therapy, W290 Grover Center, Ohio University, Athens, OH 45701, or from our Web site. (Note: all application materials will be included in the packet. Do not use recommendation forms from Graduate Studies Web site. The University's graduate application must be included in your application and can be downloaded at http://www.ohio.edu/graduate/apps.htm

- 2 Submit your completed application packet to School of Physical Therapy, Ohio University, Grover Center W290, Athens OH 45701-2979, by one of the three deadlines indicated on the Web site. These are usually in October, January, and March prior to the beginning of classes in June. The following materials must be included:
- a Evidence of either an earned baccalaureate degree or a plan for degree completion:
- 1 If you have a baccalaureate degree at the time of application, submit a transcript with verification of the degree(s) awarded.
- 2 If you do not have a baccalaureate degree at the time of application but will have a baccalaureate degree awarded before beginning the professional program in June, submit a plan for completing the degree signed by your advisor. Verification of the completion of degree requirements must be provided before you begin the professional program. An official transcript indicating the awarding of the degree must be received by Graduate Student Services, Wilson Hall, Ohio University, Athens, OH 4S701-2979 by the start of the fall quarter.
- **b** Two official transcripts, with course descriptions, from each postsecondary institution attended. (You do not need to submit transcripts for coursework completed at Ohio University.)
- c Graduate Record Examination (GRE) scores or the date the exam is scheduled to be taken. GRE results should be received by February 1.
- d Nonrefundable application fee.

#### Selection

The School of Physical Therapy admissions committee considers the following in ranking and selecting eligible applicants:

- 1 Overall g.p.a.
- **2** Prerequisite life and physical sciences g.p.a.
- 3 Interview
- 4 References
- 5 GRE scores
- 6 Relevant life experiences

Typically 40 students are admitted yearly. You will be notified of acceptance no later than late April.

#### Eligibility Requirements to Begin Physical Therapy Coursework

If admitted, you must meet the following requirements before you begin physical therapy coursework in June:

- **1** Completion of all prerequisite coursework.
- 2 Completion of a baccalaureate degree.

#### **Program of Study**

The following is a listing of the courses required in the three-calendar-year graduate professional education program in physical therapy.

Anatomical Dissection I (5)

#### First-Year Coursework

PT 701

PT 703	Clinical Skills and Examination I (4)
PT 704	Clinical Skills and Examination II (4)
PT 711	Pathophysiology in Physical Therapy (2)
PT 713	Pharmacology in Physical Therapy (2)
PT 715	Imaging in Physical Therapy (2)
PT 730	Clinical & Profession Orientation (2)
PT 731	Professional Communication and Documentation (2)
PT 740	Clinical Research I: Design (3)
PT 741	Clinical Research II: Data Analysis (3)
PT 742	Clinical Research III: Evidence-based Practice (3)
PT 750	Neuroanatomy for Physical Therapy (2)
PT 751	Neural I: System Framework (4)
PT 752	Neural II: Management of Adult Stroke (4)
PT 763	Bioinstrumentation in Rehabilitation (3)
PT 76 <b>S</b>	Physical Agents (3)
PT 770	Tissue Mechanics (4)
PT 771	Ortho I: Upper Quarter (4)
PT 772	Ortho II: Lower Quarter (4)
PT 781	Clinical Experience I (1)
PT 782	Clinical Experience II (1)

#### Second-Year Coursework

PT 702	Anatomical Dissection II (2)
PT 743	Critical Analysis of Scientific Literature (2)
PT 745	Scientific Writing (1)
PT 753	Neural III: Management of Traumatic Brain Injury (4)
PT 754	Neural IV: Management of Chroni or Progressive Disability (4)
PT 773	Ortho III: Spine (4)
PT 774	Orthopedics IV:

<b>or</b> PT 77S	Orthopedics V: Spine Seminar (3)
PT 776	Manual Therapy I (2)
PT 833	Regulation and Reimbursement in Physical Therapy (3)
PT 834	Planning Physical Therapy Services (2)
PT 841	Pediatrics I: Neuromuscular Development (2)
PT 860	Synthesis Laboratory I (2)
PT 861	Synthesis Laboratory II (2)
PT 863	Differential Diagnosis Physical Therapy I (3)
PT 864	Differential Diagnosis Physical Therapy II (3)
PT 86S	Wound Care and Integumentary System (2)
PT 866	Cardiopulmonary Physical Therapy (3)
PT 880	Clinical Practicum I (10)
PT 894	Research/Capstone (1-3)

#### Third-Year Coursework

PT 746

PT 7SS	Neural V: Neurorehabilitation Seminar (3)
PT 777	Manual Therapy II (2)
PT 83S	Management & Leadership in Physical Therapy (4)
PT 836	Analysis of Professional Issues in Physical Therapy (2)
PT 837	Legal and Ethical Issues in Physical Therapy (2)
PT 842	Pediatrics II: Orthopedic Development (2)
PT 850	Management of Aging (4)
PT 862	Synthesis Seminar (2)
PT 881	Clinical Practicum II (10)
PT 882	Clinical Practicum III (3)
PT 883	Clinical Practicum IV (10)
PT 894	Research/Capstone (1-3)

Scientific Presentation (1)

#### Select two courses (six hours) from

Select two	courses (six hours) from:
P <b>T</b> 7S6	Advanced Neuroscience Seminar (3)
P <b>T</b> 790	Independent Study (1-4)
PT 843	Pediatrics III: Advanced Pediatrics (3)
PT 8S1	Temporomandibular Joint (3)
PT 8S2	Sports Physical Therapy (3)
PT 8S3	Industrial Rehabilitation and Ergonomics (3)
PT 8S4	Physical Therapy Management of Women's Health (3)

#### Physical Therapy Courses (PT)

500 Human Anatomy and Dissection (7) Detailed study of gross structures of extremities and body wall with emphasis on musculoskeletal, neuromuscular, respiratory, and cardiovascular structures. Relationships of structure to normal and abnormal function stressed. Includes surface inspection, palpation, analysis of radiographic studies, and dissection. 4 lec, 9 lab. *Su*; *Y*.

#### 501 Functional Anatomy (3)

Prereq: C or better 500. Based on a foundation of gross anatomy structure, course applies the principles of biomechanics to explore the relationship between structure and function. Emphasis on biomechanics, arthrokinematics, and muscle function of common activities. Study of palpation, goniometry, manual muscle testing. 2 lec., 3 lab. *F; Y.* 

#### 502 Clinical Kinesiology (3)

Prereq. 501. Course applies the principles of functional anatomy to the study of posture and gait. Applications of palpation, goniometry, and muscle testing skills to clinical situations. 2 lec, 3 lab. W; Y.

#### 504 Introduction to the Profession (2)

Prereq: major. Introduces the physical therapy profession and professional role expectations. Studies the history of physical therapy as it relates to the professionalization process, including ethical and legal obligations, as well as student responsibilities. 2 lec. Sur Y.

505 Introduction to Clinical Education (2)
Prereq: 504. Introduces professional role responsibilities and patient problems involved in different
clinical settings such as acute care hospitals (inpatient
and outpatient), outpatient clinics, rehab facilities,
home health agencies, long-term care facilities,
schools, and industrial settings. Basic communication

## pares students for first clinical experiences. 2 lec. F; Y. 506 Clinical Neurology for Physical Therapists (2)

skills for effective therapist/ patient interaction. Pre-

Prereq: 500. Provides a link between basic neuroscience and the clinical manifestations which occur following a disruption of processes within the peripheral and central nervous systems. Focus will be on signs and symptoms of conditions treated by physical therapists (same as PT 406). 2 lec. F; Y.

#### 512 Professional Role Issues (2)

Major philosophical and substantive issues confronting physical therapists and other professionals involved in health care delivery are discussed. Includes historical perspectives, education and accreditation, and roles and responsibilities of physical therapists relative to supportive personnel and related health care disciplines. Emphasis on role problems. 2 lec. W; Y.

#### 525A PT Evaluations: Case 5tudies (2)

Introduction to evaluation formats and procedures to complement the clinical decision-making process concurrently taught. Focus on presenting general and specialty evaluations by clinicians, with opportunities for discussion, practice, and critique. 1 lec, 2 lab. W; Y.

#### 540 Clinical Decision Making (2)

Prereq: 500. Presents theoretical foundation of clinical problem solving. Problem solving models for decision making are advanced and critiqued. Focus on physical therapy evaluation and treatment with analysis of process utilized by clinicians. Application in the clinical setting is provided through arranged experiences. 2 lec, W; Y.

#### 548A Clinical Modalities (3)

Prereq: 503. Designed to provide both theore-tical base and procedural techniques involved in the use of clinical modalities. Emphasis on thermal agents, mechanical agents, electrical stimulation, biofeedback, and electromyography. 2 lec, 3 lab. *Sp; Y*:

#### 550A Introduction to Clinical Orthopedics (3)

Prereq: 502. Application of kinesiology, pathophysiology, evaluation, and decision-making skills in common conditions such as sprains, strains, fractures, and total joint arthoplasty. Clinical decision making in sports medicine, industrial, and geriatric cases. Aspects of orthopedic surgical intervention discussed. 2 lec, 3 lab. *Sp; Y.* 

#### 567 General Medical-Surgical Cases (3)

Prereq: 500. Presentation of general medicalsurgical patient problems commonly seen in physical therapy. Case-study approach incorporates basic, social, and clinical sciences as well as PT and interdisciplinary evaluation and treatment. Emphasis is on diagnostic and patient care procedures. 2 lec, 2 lab. *Sp; Y.* 

#### 580A Research Design (3)

Prereq: 540. Application of research principles and procedures to critical analysis of physical therapy related research literature; identification and development of a researchable problem in physical therapy. 3 lec. Y.

## 599 Clinical Education Experience I (1) Prereq: 505. Students are assigned clinical

Prereq: 505. Students are assigned clinical experiences appropriate to their level of skill (same as PT 499) 3 lab. F, W, Sp; Y.

#### 641 Culture and Health (2)

Prereq: S40. Provides a cultural perspective for clinical problem solving. Focus is on the cross-cultural nature of professional-patient interaction. 2 lec, F; Y.

## 642 Planning Physical Therapy Services (2) Provides students with basic knowledge and skills needed to plan for physical therapy services. Topics include organizational theory and design, as well as planning for space, personnel, and budget

643 Managing Physical Therapy Services (2) Provides students with the basic knowledge and skills needed to manage physical therapy services. Topics include implementing personnel, equipment, and budgetary policies and procedures. 2 lec. Sp: Y.

needs of a physical therapy practice. 2 lec. W; Y.

#### 644 Legal and Ethical Issues (2)

Prereq: 643. Provides an ethical and legal framework for clinical problem solving. Focuses on personal and professional assessment of complex issues in health care delivery. 2 lec. W; Y.

#### 651 Theoretical Foundations of Orthopedic Physical Therapy (3)

Prereq: 550. Presentation of patient problems involving musculoskeletal dysfunction commonly seen in PT. Each problem incorporates content from basic, social, and clinical sciences, as well as physical therapy arts and sciences. 2 lec, 3 lab. F; Y.

#### 652 Clinical Orthopedics I (4)

Prereq: 651. Designed to complement and expand on the basic knowledge and skills taught in 651. Focuses on specific pathological problems of the hip, knee, ankle, foot, and lumbar spine. Covers the anatomy, arthrokinematics, detailed evaluation, and treatment in relation to specific pathological problems. 3 lec, 3 lab. W; Y.

#### 653 Clinical Orthopedics II (4)

Prereq: 652. Designed to complement and expand on basic knowledge and skills taught in 652. Focuses on specific pathological problems of the cervical spine, shoulder, elbow, wrist, and hand. Covers the anatomy, arthrokinematics, detailed evaluation, and treatment in relation to specific pathological problems. 3 lec, 3 lab. *Sp; Y*.

#### 654 Advanced Clinical Orthopedic Seminar (2)

Prereq: 653. Provides opportunity to integrate knowledge and skills from prior orthopedic courses into the study of advanced patient problems. Emphasis on recent theoretical advances and/or state-of-the-art physical therapy approaches. 2 lec. W; Y:

#### 655 Advanced Principles of Exercise and Treatment in Orthopedics (2)

Prereq: 653. Application of advanced exercises and manual techniques designed to rehabilitate the problems of instability, decreased mobility, and impaired propiception in patients with orthopedic problems. Problems will be specific to the shoulder/cevical spine complex, the lower quarter, and the hip/sacroiliac/lumbar spine complex.

#### Foundations of Neurological Physical Therapy (4)

Prereq: 500. Presentation of patient problems involving neuromuscular dysfunction associated with trauma or pathology of spinal or peripheral

structures. Content of each problem incorporates basic, social, and clinical sciences and physical therapy arts and sciences. 3 lec, 3 lab. F: Y.

#### 661 Motor Control and Applied Developmental Physical Therapy (3)

Prereq: 660. Physical therapy evaluation, treat-ment, and documentation of developmental patient problems related to central nervous system dysfunction in infants, children, and adolescents. Emphasis on treatment procedures for clients with abnormalities of muscle tone, postural stability and adjustment, movement quality, and function. 2 lec, 3 lab. F; Y.

#### 662 Problems in Positioning (3)

Prereq: 661. Designed to help students learn to augment physical therapy plans of care by integrating the use of prosthetics, orthotics, casts, mobility systems, custom seating systems, and adaptive positioning systems. 2 lec, 3 lab. *Sp. Y.* 

#### 563 Sensorimotor Control Mechanisms in Adult Neurological Rehabilitation (4)

Prereq: 660. Physical therapy evaluation, treat-ment, and documentation of complex problems related to sensorimotor control dysfunction in adults. Contemporary models of neurophysiologic control of posture and movement form the basis for applying evaluation and treatment procedures for abnormalities of muscle tone, postural adaptability, movement quality, and function. 2 lec, 4 lab. W; Y.

## 664 Advanced Clinical Neurology Seminar (2) Prereq: 567. Provides opportunity to integrate knowledge and skills from prior neurology courses and clinical experiences into the study of advanced patient problems and critical issues. Emphasis on recent theoretical advances and/or complex, state-of-the-art physical therapy approaches. 1 lec, 2 lab. W; Y.

#### 668 Advanced Medical-Surgical Cases (3)

Prereq: 667. Designed to provide students with opportunities to incorporate the knowledge and skills of medical-surgical problems with physical therapy knowledge and skills. Emphasis on complex medical-surgical problems, advanced evaluation and treatment techniques, and interdisciplinary health care issues. 2 lec, 3 lab. Sp; Y.

# 670 Cardiopulmonary Physical Therapy (3) Prereq: 667. Covers patient problems involving cardiovascular and respiratory dysfunction commonly seen in physical therapy. Problems incorporate content from basic, social, and clinical sciences and physical therapy arts and sciences. 2 lec, 2 lab. F; Y.

#### 675 Clinical Practicum I (3)

Prereq: 512. Participation in planning, develop-ment, delivery, and evaluation of patient care and administrative, educational, and consultative services in physical therapy or community health. Students assigned to variety of community-based physical therapy units and health care agencies. 40 hours/week for six weeks. Su; Y.

## 676 Clinical Practicum II (3) Prereq: 675. See 675 for description. 40 hours/week for six weeks. Su; Y.

#### 677 Clinical Practicum III (2) Prereq: 676. See 675 for description. 40 hours/week for four weeks. W; Y.

## 678 Clinical Practicum IV (7) Prereq: 677. See 675 for description. 40 hours/week for 12 weeks. Sp; Y.

# 679 Clinical Teaching-Learning Processes (3) Prereq: 567. Application of education theories, practices, and procedures in developing, implementing, and evaluating instructional programs for patients, families, community groups, physical therapy students, and health care providers. Emphasis on unique demands imposed on education by consumer's health care needs, clinical environment, and health care organization and delivery. 2 lec, 3 lab. W; Y.

#### 681 Research Issues I (2)

Prereq: 580. Designed as part of a three-course series on systematic inquiry into questions surrounding PT education and clinical practice. Explores theoretical frameworks for both quantitative and qualitative research design. Topics depend upon faculty and student research questions and will vary each year. Students may take research hours concurrently to work with an advisor on an approved project. 2 lec. F; Y.

#### 682 Research Issues II (2)

Prereq: 681. Second course in series and explores data collection and analysis methodologies. Students may take research hours concurrently to work with an advisor on an approved project. 2 lec. *Sp; Y.* 

#### 683 Research Issues III (2)

Prereq: 682. Third course in series explores the dissemination of research findings through publication, presentation, and grant writing. Topics will depend on research projects completed and dissemination strategies of the researchers. Students may take research hours concurrently to work with an advisor on an approved project. 2 lec. F; Y.

#### 685 Advanced Case Studies in PT Evaluation and Treatment (3)

Prereq: 653, 663. Synthesis course designed to incorporate basic and clinical science knowledge and skills into evaluation and treatment of complex patient problems. Emphasis on integration of theory and practice with application to advanced cases. 2 lec, 3 lab. W; Y.

- 690 Independent 5tudy (1–4, max 12) Supervised study of selected topics in or related to physical therapy.
- 692 Critical Analysis of Physical Therapy (2) Prereq: 683. Designed to develop skills necessary for the analysis of physical therapy education, research, and practice. Emphasis on aspects of physical therapy evaluation and treatment, both on the patient and program level. 2 lec. W; Y.

#### 694 Research (1–4, max 12)

Supervised research in selected topic of interest.

## 699 Clinical Education Experience II (1) Prereq: 550A. Students are assigned clinical experiences appropriate to their level of skill in a variety of settings. May be repeated for a maximum of 12 hours. 3 lab. F, W, Sp; Y.

#### 701 Anatomical Dissection I (5)

Prereq: Admission to DPT program. Dissection and radiographic anatomy of the spine, lower extremity, and upper extremity as related to physical therapy. 3 lec., 6 lab. Su; Y.

#### 702 Anatomical Dissection II (2)

Prereq: 701. Dissection and radiographic anatomy of the thorax, peritoneum and head as related to physical therapy. 1 lec., 3 lab. *Su*; *Y*.

- 703 Clinical Skills and Examination I (4) Prereq: Admission to DPT program. Beginning course in functional anatomy, bony and soft tissue palpation, goniometry, manual muscle testing, movement analysis, and the foundations of therapeutic exercise. 2 lec., 4 lab. Su; Y.
- 704 Clinical Skills and Examination II (4) Prereq: 703. Builds on PT 703; further organization and development of basic examination skills. Develop medical history-taking skills and organize physical examination sequence. Emphasis on postural and gait analyses. 2 lec., 4 lab. F: Y.
- 711 Pathophysiology in Physical Therapy (2) Prereq: 701. Application of physiological principles to the study of disease and injury. Emphasis on etiologies and classifications of pathology and the implications of pathophysiology for physical therapy evaluation and treatment. 2 lec. *F;* Y.
- 713 Pharmacology in Physical Therapy (2)
  Prereq: 711. Discussion of pharmacology and its

implication in physical therapy. Emphasis on drug classifications and drug mechanism of action. 2 lec. Sp; Y.

715 Imaging in Physical Therapy (2) Prereq: Admission to DPT program. Medical imaging course which covers plane x-ray, MRI, functional MRI, CT scan, positron emission tomography (PET) scan, and ultrasound as related to physical therapy. 2 lec. Su; Y.

730 Clinical & Profession Orientation (2)
Prereq: 703. Introduce professional role
responsibilities and patient problems involved in
different clinical settings. Foundational
information on physical therapy practice. 2 lec. F; Y.

#### 731 Professional Communication and Documentation (2)

Prereq: 730. Focus on professional communication skills and documentation skills for physical therapy practice. Application of educational practices and the development of instructional programs for clients and families across cultures. 2 lec. W; Y.

#### 740 Clinical Research I: Design (3)

Prereq: 703. Discussion of basic research design as related to physical therapy practice. Design and analysis considers qualitative, quantitative and epidemiological models. Emphasis on acquiring the skills to critically analyze research. 3 lec. *F; Y.* 

741 Clinical Research II: Data Analysis (3) Prereq: 740. Ability to use and interpret statistical analyses including multiple comparison tests, multivariate tests, regression models, and Chisquare tests. Applications made to the capstone project and evidence-based practice within the profession of physical therapy. 3 lec. W; Y.

#### 742 Clinical Research III: Evidence-based Practice (3)

Prereq: 741. Focuses on evidence-based practice as a foundation for clinical decision-making in physical therapy. 3 lec. *Sp; Y.* 

743 Critical Analysis of Scientific Literature (1) Prereq: 742. Continues development of the student's ability to critically analyze published biomedical scientific literature and to apply results from studies to the clinical practice of physical therapy. 1 lec. Su; Y.

#### 745 Scientific Writing (1)

Prereq: 743. Development of scientific writing skills for the capstone project in physical therapy. 1 lec. W; Y.

#### 746 Scientific Presentation (1)

Prereq: 745. Development of professional presentation skills for the dissemination of the capstone project. 1 lec.  $F_i$ :  $Y_i$ 

750 Neuroanatomy for Physical Therapists (2) Prereq: 701. Neuroanatomical study of the human brain emphasizing motor function and clinical considerations relative to physical therapy. 1 lec., 2 lab. F; Y.

#### 751 Neural Basis of Movement I: 5ystems Framework (4)

Prereq: 750. Focus on motor control deficits that occur when one or more systems are not functioning optimally. 4 lec. W; Y.

## 752 Neural Basis of Movement II: Management of Adult Stroke (4)

Prereq: 751. Apply knowledge of neuroanatomy and motor control systems to the physical therapy evaluation and treatment of persons who have focal lesions, such as a stroke, within the brain. Emphasis on motor learning and functional re-training. 2 lec, 4 lab. *Sp; Y.* 

#### 753 Neural Basis of Movement III:

Management of Traumatic Brain Injury (4) Prereq: 752. Apply knowledge of motor control and motor learning theory to the assessment and treatment of patients with diffuse lesions within the brain. Focus on a systems approach to clinical decision-making and case management. 3 lec; 3 lab. Su; Y.

#### 754 Neural Basis of Mocement IV: Management of Chronic or Progressive Disability (4)

Prereq: 753. Apply knowledge of disease progression, motor control and motor learning to the assessment and management of patients with chronic or progressive disease or injury of the spinal cord or brain. Stresses timely intervention and prevention of secondary impairments, functional limitations, and disability over the course of an illness or disease. 3 lec., 3 lab. W; Y.

#### 755 Neural Basis of Movement V: Neurorehabilitation Seminar (3)

Prereq: 753. Exploration of the literature relative to evidence-based practice in the assessment and management of patients with neurological disorders. New management techniques will be stressed. 3 lec. F; Y.

756 Advanced Neuroscience Seminar (3) Prereq: 753. Exploration of topics in neuroscience, particularly new scientific discoveries that can be important to management of physical therapy. 3 lec. W; A.

#### 763 Bioinstrumentation in Rehabilitation (3) Prereq: 704. Introduces principles of

bioinstrumentation in order to facilitate the students' understanding of the instrumentation used in healthcare practice and research. 2 lec., 3 lab. W; Y.

#### 76S Physical Agents (3)

Prereq: 765. Introduces theoretical constructs for the use of physical agents in the treatment of patients by physical therapists. Practice application of both thermal and electric physical agents using a case based approach. 2 lec., 3 lab. Sp; Y.

#### 770 Tissue Mechanics (4)

Prereq: 703. Discussion of biological, histological and biomechanical principles of connective tissues, bone, and muscle as applied to physical examination and therapeutic exercise. 3 lec., 2 lab. *F*; *Y*.

771 Orthopedics I: Upper Quarter (4)
Prereq: 770. Orthopedic examination and treatment
of the upper quarter of the musculoskeletal system

of the upper quarter of the musculoskeletal system for physical therapists. Begins development of manual skills and of appropriate exercise programs for the upper quarter. 2 lec., 4 lab. W; Y.

## 772 Orthopedics II: Lower Quarter (4) Prereq: 771. Orthopedic examination and tre

Prereq: 771. Orthopedic examination and treatment of the lower quarter of the musculoskeletal system for physical therapists. Begins development of manual skills and of appropriate exercise programs for the lower quarter. 2 lec., 4 lab. *Sp;* Y.

#### 773 Orthopedics III: Spine (4)

Prereq: 772. Orthopedic examination and treatment of the spine for physical therapists. Further development of manual skills and of appropriate exercise programs for the spine. 2 lec., 4 lab. *Su; Y.* 

774 Orthopedics IV: Extremity Seminar (3)
Prereq: 773. Continues the student's theoretical
knowledge of extremity function, biomechanics,
pathology, and treatment. 3 lec. W; Y.

#### 775 Orthopedics V: 5pine 5eminar (3)

Prereq: 773. Continue the student's theoretical knowledge of spinal function, biomechanics, pathology, and treatment. 3 lec. W; Y.

#### 776 Manual Therapy I (2)

Prereq: 773. Presents various theories of manual therapy relative to extremity diagnoses. Focuses on the treatment efficacy of each theory as it relates to physical therapy practice. 1 lec., 2 lab. Sp; Y.

#### 777 Manual Therapy II (2)

Prereq: 776. Presents various theories of manual therapy relative to spinal conditions. Concept and skills build on work from PT 776. Focuses on treatment efficacy relative to physical therapy practice. 1 lec., 2 lab. F; Y.

#### 781 Clinical Experience I (1)

Prereq. 703. Clinical experience under the supervision of clinical faculty during which students practice skills previously learned in the classroom and lab. 3 lab, W; Y

#### 782 Clinical Experience II (1)

Prereq 781. Continuation of clinical experience under the supervision of clinical faculty during which they practice skills previously learned. 3 lab. *Sp. Y.* 

#### 790 Independent Study (1-4)

Prereq: 703. Students will work with physical therapy faculty and/or staff on the completion of an independent study contract related to the student's particular interest. 2-12 lab. F, W, Sp, Su; Y.

#### 833 Regulation and Reimbursement in Physical Therapy (3)

Prereq: 731. Focuses on third party reimbursement and federal and state regulations within the healthcare setting. 3 lec. W; Y.

834 Planning Physical Therapy Services (2) Prereq: 833. Provides basic knowledge and skills needed to plan for physical therapy services. Topics include organizational theory and design, as well as planning for space, personnel, and budget needs of a physical therapy practice. 2 lec. *Sp; Y.* 

#### 835 Management and Leadership in Physical Therapy (4)

Prereq: 834. Provides basic knowledge and skills needed to manage physical therapy services. Topics include utilizing equipment, leading and supervising personnel, developing and executing mission statements and strategic plans, and implementing budgetary policies and procedures. 4 lec. F; Y.

#### 836 Analysis of Professional Issues in Physical Therapy (2)

Prereq: 835. Develops skills necessary for the analysis of physical therapy education, research, and practice. Emphasis on aspects of physical therapy evaluation and treatment, both on the patient and program level. 2 lec. W; Y.

## 837 Legal and Ethical Issues in Physical Therapy (2)

Prereq: 835. Provides an ethical and legal framework for clinical problem solving in the practice of physical therapy. Focuses on personal and professional assessment of complex issues in health care delivery. 2 lec. W; Y.

- 841 Pediatrics I: Neuromuscular Development (2) Prereq: 752. Assessment and management of children with selected neuromuscular problems that arise in infancy and childhood. 1 lec., 2 lab. *So; Y.*
- 842 Pediatrics II: Orthopedic Development (2) Prereq: 841. Development of the musculoskeletal system and remediation of musculoskeletal problems in infants, children, and adolescents. 1 lec., 2 lab. F; Y.
- 843 Pediatrics III: Advanced Pediatrics (3) Prereq: 842. Provides additional knowledge and skills in selected areas of pediatric physical therapy. 3 lec. W; A.

#### 850 Management of Aging (4)

Prereq: 713. Examines current theories on aging, strategies for prevention of physical and cognitive impairments, and the physical therapy management of common disorders. 3 lec., 3 lab. *F;* Y.

#### 851 Temporomandibular Joint (3)

Prereq: 774 or concurrent. Presentation of current concepts of the temporomandibular joint (TMJ) normal anatomy and function, physical therapy evaluation and treatment, and medical/dental interventions. Topics will be related to current clinical practice and research supported practices. 2 lec., 2 lab. W; A.

#### 852 Sports Physical Therapy (3)

Prereq: 777. Builds on previous orthopedic physical therapy courses by focusing on injuries encountered during various levels of athletic participation from Little League to Senior Olympics. 2 lec., 2 lab. W; A.

#### 353 Industrial Rehabilitation and Ergonomics (3)

Prereq: 777. Management of patients in the industrial setting. Focuses on functional capacity evaluation, human factors analysis, ergonomic evaluation, administrative controls, return to work strategies, work reconditioning, and work hardening. 3 lec. W; A...

#### 854 Physical Therapy Management of Women's Health (3)

Prereq: 864. Integrates normal structure and function of the female urogenital system with normal events, such as pregnancy and menopause, as well as with pathophysiology such as incontinence and pelvic pain. Physical therapy assessment, diagnosis, and management will be emphasized. 2 lec., 2 lab. W; A.

#### 860 Synthesis Laboratory I (2)

Prereq: 772. Integrates knowledge and skills from previous and concomitant courses to solve elementary clinical problems related to the musculoskeletal and neurological systems under the guidance of physical therapy faculty in a problem-based learning format. 1 lec., 2 lab. Su; Y.

#### 861 Synthesis Laboratory II (2)

Prereq: 860. Integrates knowledge and skills from previous and concomitant courses to solve complex clinical problems related to chronic disabilities, cardiopulmonary issues, oncology, and burns under the guidance of physical therapy faculty in a problem-based learning format. 1 lec., 2 lab. Sp; Y.

#### 862 Synthesis Seminar (2)

Prereq: 861. Incorporates skills and knowledge from multiple disciplines as well as from previous and concomitant courses, including legal and ethical issues and issues surrounding reimbursement to address problems in multiple trauma patients in a problem-based learning format related to the solution of clinical problems. 2 lec. W; Y.

- 863 Differential Diagnosis in Physical Therapy I (3) Prereq: 711. Process of differential diagnosis and application in the practice of physical therapy. 2 lec., 2 lab. Su; Y.
- 864 Physical Therapy Differential Diagnosis II (3) Prereq: 863. Prepares the student to identify the patient with systemic pathologies requiring further consultation or referral to other health care providers through principles of differential diagnosis. 2 lec., 2 lab. *Sp; Y.*
- 865 Wound Care and Integumentary System (2) Prereq: 765. Assessment and treatment principles and techniques associated with the physical therapy management of integumentary system pathology. 1 lec., 2 lab. W; Y.
- 866 Cardiopulmonary Physical Therapy (3) Prereq: 711. Provides the knowledge and skills necessary to evaluate and treat individuals with cardiopulmonary problems. 3 lec. *Sp; Y.*

#### 881 Clinical Practicum I (10)

Prereq: 881. Provides students with a supervised experience at a selected acute care or primary care clinical site. Students are given the opportunity to develop basic clinical skills in assessment and management of patients with elementary clinical conditions under the direct supervision of clinical faculty. 40 lab. F; Y.

#### 882 Clinical Practicum II (10)

Prereq: 880. Provides students with a supervised clinical experience at a different site than previously used. Students will develop intermediate-level clinical skills in the assessment and management of

patients with more complex neurologic and orthopedic conditions. Patients with integumentary, pediatric, and cardiopulmonary disorders will also be encountered. 40 lab. Su; Y.

#### 883 Clinical Practicum III (3)

Prereq: 881. Provides students with a supervised experience at a specialized clinical site. Students are given the opportunity to develop specialty clinical skills in assessment and management of patients with conditions related to the area of specialization under the direct supervision of clinical faculty during a four week period. 40 lab. W; Y.

#### 884 Clinical Practicum IV (10)

Prereq: 882. Provides students with a supervised period of study at a selected clinical site emphasizing complex patient problems/multiple trauma. Students are given the opportunity to develop advanced clinical skills in assessment, decision-making, and management of patients under the direct supervision of clinical faculty, 40 lab. *Sp; Y.* 

#### 894 Research/Capstone (1-3)

Prereq: 740. Student has a mentoring relationship with a faculty member concerning the student's chosen research topic. 2-9 lab. F, W, Sp; Y.

## School of Recreation and Sport Sciences

http://www.ohio.edu/rsps/

The School of Recreation and Sport Sciences offers three master's degrees: Recreation and Sport Sciences, Physiology of Exercise, and Sports Administration. The Master of Science in Recreation and Sport Sciences offers concentrations in athletic training education, coaching education, and recreation studies. The school also offers programs leading to the Master of Science in Physiology of Exercise (M.S.) with clinical or research concentrations and the Master of Sports Administration (M.S.A.). The school, in cooperation with the College of Business, has established a dual Master of Business Administration and Master of Sports Administration (M.B.A./M.S.A.) program.

The school provides a unique "summers only" master's program, which allows public school teachers and others with a flexible summer schedule to complete the requirements for a master's degree in coaching education in three consecutive summer sessions. Coursework is presented on a three-year cycle that requires consecutive attendance.

The maximum time allowed between the date that you first initiate graduate

study toward a master's degree option and the date that you complete the requirements for the degree is six calendar years. Full-time students can typically complete the coaching education and recreation studies concentrations in one academic year; the athletic training education and sports administration and facility management concentrations in 12 months (including internship). The physiology of exercise-clinical concentration can be completed in five (5) quarters. The physiology of exercise-research and sports administration/business administration (dual degree) programs can be completed in two academic years.

One may transfer a maximum of 12 quarter hours of graduate credit from an accredited university, providing the credit to be transferred has been designated graduate credit at the institution where taken, is letter graded B or better, was earned in the past five years, was applicable toward an advanced degree at the institution where taken, and is approved by your advisor and graduate coordinator. Credit for courses taken by correspondence cannot be accepted toward meeting the required minimum hours.

In collaboration with Ohio University Without Boundaries (OUWB), the school also offers an online Master of Science in Recreation and Sport Sciences with a concentration in athletic administration. This online master's degree program is designed specifically for high-energy, high-potential interscholastic athletic administrators; for individuals who have demonstrated their drive and capability through a minimum of two to four years of athletic administration, and for interscholastic athletic administrators 5 A résumé, including your educational who aspire to be leaders of world-class athletic programs that make a difference in the lives of young people.

#### Master of Science in **Recreation and Sport Sciences**

(Concentrations in athletic training education, coaching education, and recreation studies.)

#### **Eligibility to Apply**

You must meet the following requirements to be considered for unconditional admission to the School of Recreation and Sport Sciences graduate concentrations in athletic training education, coaching education, and recreation studies:

- 1 Earned bachelor's degree in athletic training education, physical education, sport sciences, recreation or field related to your selected area of study from an accredited college or university. If your bachelor's degree is in an unrelated field, you may be admitted conditionally. To be admitted unconditionally for fall, you must successfully complete 12 hours of graded graduate coursework in the summer prior to fall matriculation, with an overall 3.0 g.p.a.
- 2 Minimum overall undergraduate grade-point average (g.p.a.) of 2.7 on a 4.0 scale on last 90 quarter hours or last 60 semester hours
- 3 Satisfactory Graduate Record Examination (GRE) scores.

#### **Application**

The following materials must be received before your application can be considered for admission:

- 1 Completed graduate application. Athletic training education applicants are required to submit supplemental application materials.
- 2 Graduate Record Examination (GRE)
- 3 Official transcripts from each postsecondary institution attended. (You do not need to submit transcripts of coursework completed at Ohio University.)
- 4 One-two page typed biography that includes information about your background and experiences and how they relate to your future career goals.
- background and professional work experience.
- 6 Three letters of recommendation. (Athletic training education applicants use forms provided in the supplemental application packet.) At least one of your references must be an individual who can attest to your qualifications in your chosen field and one from an academic faculty member who can support your ability to produce successful academic work at the graduate level. Please be certain to identify your intended concentration prior to giving it to the individual providing the reference.

Submit your completed application, GRE scores, transcripts, and application

fee to the Office of Graduate Studies, Ohio University, McKee House, Athens OH 45701-2979.

The biography, résumé and letters of recommendation should be sent directly to the graduate coordinator, School of Recreation and Sport Sciences, Ohio University, Grover Center E160, Athens OH 45701-2979.

Note: If you are applying to the athletic training education concentration, an on-campus interview at your expense is required. Since all accepted students participate in a partnership program to provide athletic training services at affiliate sites such as high schools, colleges or clinics, it is necessary to match qualifications with site needs.

Applications for admission are accepted for summer or fall. Typically, all applications for both admission and financial aid for the next academic year must be received by March 1 unless indicated differently. Applicants to the athletic training education program must apply by February 1. International students must also present TOEFL scores (minimum of written 575; computer 233 for consideration) and apply by February 1.

For the "summers only" option, all application materials must be received by June 1.

Financial assistance, such as assistantships, is available. Information regarding graduate assistantships can be found on the school's Web site.

#### **Program Requirements**

Requirements for each option vary depending on whether you select the thesis or nonthesis option. The thesis option requires 45 quarter hours of coursework, which includes six hours dedicated to the completion of the thesis. The nonthesis option requires a minimum of 50 quarter hours of coursework. If you select the non-thesis option, you are required to complete a capstone outcome assessment, such as a final project, written, oral and/or practical comprehensive examinations, mentored writing experience, or professional portfolio. Programs of study are planned with your academic advisor, taking into consideration your undergraduate preparation and professional goals.

Athletic Training Education. The athletic training education program requires a summer admission with four consecutive quarter assignments to complete the degree. Partnership assignments begin during the second summer term; thus, if you are accepted, you must be NATA-certified by your August assignment start date. Tuition scholarships and stipends are available to qualified students.

#### Concentration requirements are:

PESS 608	Research Methods and Statistics (S)
RSAT 60S	Muscle Testing and Function (4)
RSAT 610	Orthopedic Assessment (4)
RSAT 620	Therapeutic Exercise (4)
RSAT 62S	Therapeutic Modalities (4)
RSAT 630	Injury Prevention Techniques (3)
RSAT 635	Seminar in Sports Medicine Problems (3)
RSAT 640	Administrative Aspects of Sports Medicine (3)
RSAT 645	Emergency Management of Athletic Trauma (3)
RSAT 6S0	Practicum (1–5)
RSAT 651	Medical Aspects (3)

In addition, you must complete 1,000 clinical hours, which are built into the program.

Coaching Education. The coaching education concentration is designed to provide you with course work and appropriate experiences that prepare one to coach at any level; youth sports, interscholastic or intercollegiate athletics. An undergraduate major in physical education or closely related field is strongly recommended. Current certification in First Aid and CPR, prior to the start of classes, for all students admitted into this concentration is required.

#### Concentration requirements are:

PESS 606	Organization and Administration of Physical Education and Sport (4)
PESS 608	Research Methods and Statistics (S
PESS 612 or PESS 640	Applied Biomechanics (4) Analysis of Performance in Sports (3
PESS 624	Legal Foundation and Risk Management in Athletics (4)
PESS 630	Foundations of Coaching (3)
PESS 650	Practicum (1-\$)
PESS 6SS	Psychology of Coaching (3)
PESS 688	Contemporary Issues in Sport Sciences (4)

**Note:** Students who do not have an exercise physiology background are also required to take PESS 631, Performance and Conditioning for Coaches.

Recreation Studies. The recreation studies concentration is designed to provide a comprehensive program that includes appropriate coursework and practical experiences in recreation. The program prepares you for a multitude of employment opportunities in the recreation profession.

#### Concentration requirements are:

PESS 608	Research Methods and Statistics (S)
REC 601	Contemporary Issues (4)
REC 649	Administration of Community Recreation (4)
REC 650	Practicum (1-S)
REC 675	Adventure Programming (3)
SAFM 670	Financial Administration of Sport Facilities and Programs (4)

#### Master of Science in Recreation and Sport Sciences with a Concentration in Athletic Administration (Online)

The Master of Science in Recreation and Sport Sciences with a concentration in athletic administration is an online program that combines the personal touch of high-intensity residential experiences with the "anytime, anyplace" convenience and ease of access of online education enabled by the latest in information technology.

The program is a lock-step program lasting 27 months. All participants start together and work together as a learning community throughout the program. Likewise, there is a faculty team that works with participants throughout the program. You'll form a network that will support you in your learning efforts, advise you on work issues, and continue even after you receive your degree.

There are three residencies during the program. The first is a one-week orientation residency on the Ohio University campus in Athens, Ohio. It kicks off the program and is held in June. The other two residencies are held in conjunction with the national meetings of NFHS/NIAAA in December.

Residencies are intense face-to-face learning experiences with your fellow participants and faculty. Be prepared: we'll work long hours to maximize the benefits of our time together. During the residencies, we focus on start-up of courses, do learning assessments, and work on some skill areas that are best learned in a face-to-face

environment. Residencies also give us an opportunity to "get to know each other" in a way that is not as possible in a purely online learning format.

Between residencies, you will collaborate with your fellow participants and with the faculty on the Ohio University Without Boundaries (OUWB) intranet. You will also participate in interactive, multimedia learning modules that will help you develop a deep understanding of the content and help you apply that content in the work setting.

Most learning modules will use a unique, challenge-based format that engages you with an applied situation before you even start learning the content, You will readdress the challenge at the end of the module to ensure that you have mastered the content and can apply it in the workplace. We have found that the challenge-based learning format gets you more engaged with your learning more rapidly. Further, since you learn the required content in the context of its use, you develop an active using knowledge that can more readily be recalled and used in the workplace. Besides, it is simply more fun to learn by being challenged than it is to try to memorize a dry set of facts!

#### **Eligibility to Apply**

You must meet the following requirements to be considered for unconditional admission to the School of Recreation and Sport Sciences graduate program in athletic administration (online):

- 1 Earned bachelor's degree in athletic training education, physical education, sport sciences, recreation or field related to athletic administration from an accredited four-year college or university. If your degree is in an unrelated field, you may be admitted conditionally.
- 2 Minimum overall undergraduate grade-point average (g.p.a.) of 2.70 on a 4.0 scale on last 90 quarter hours or last 60 semester hours.
- **3** Minimum of three years of experience in interscholastic athletics/coaching.

#### **Application**

The following materials must be received before your application can be considered for admission:

- 1 Completed application questionnaire (the questionnaire can be obtained from the Web site,
- http://www.ouwb.ohiou.edu/maa/maa/sections/how/how\_application.htm)
- **2** Official transcripts from each post-secondary institution attended.
- **3** Three letters of recommendation, one of which must come from your immediate supervisor.
- **4** A two to four page essay discussing your career goals, noting how the master's degree will help you achieve your career goals, and noting areas or competencies that you expect the program will help you strengthen or develop.
- **5** GRE and GMAT scores are not required but will be considered if they are submitted.
- 6 Career essay.

Applications for admission are accepted for summer only. Application materials may be submitted by e-mail or by hard copy.

E-mails should be directed to: ouwb@ohio.edu.

Hard copy should be sent to: Ohio University Without Boundaries, 42 West Union Street, Athens, OH 45701.

All application information must be received by March 30.

Financial assistance, such as assistantships, is available. Information regarding graduate assistantships can be found on the school's Web site.

#### **Program Requirements**

PESS 600

To complete the program of study leading to the Master of Science in Recreation and Sport Sciences with a concentration in athletic administration, the student should satisfactorily complete the required graduate coursework with a minimum of fifty (50) quarter hours.

Directed Individual Studies (2)

PESS 604	Administration of Interscholastic Athletic Programs (4)
PESS 624	Legal Foundations and Risk Management in Athletics (4)
PESS 642	Ethics in Sports (4)
PESS 6S4	Management and Leadership in Sport (4)
PESS 688	Contemporary Issues in Sport Sciences (4)
SAFM 610	Athletic Administration Seminar (4
SAFM 626	Sport Governance and Policy

Development (4)

SAFM 645	Facility Management and Programming (4)
SAFM 6SS	Sports and Sports Consumers (4)
SAFM 670	Financial Administration of Spor Facilities and Programs (4)
SAFM 667	Human Resource Management i Sport Organizations (4)
SAFM 691	Seminar (4)

#### Master of Science in Physiology of Exercise

The Master of Science in Physiology of Exercise is a degree program that allows specialization in two different concentration areas: Physiology of Exercise–Research, and Physiology of Exercise–Clinical.

#### **Eligibility to Apply**

You must meet the following requirements to be considered for unconditional admission to the School of Recreation and Sport Sciences graduate program in physiology of exercise:

- **1** Earned bachelor's degree in physical education, sport sciences, or related field from an accredited college or university.
- **2** Minimum overall undergraduate grade-point average (g.p.a.) of 3.0 on a 4.0 scale on last 90 quarter hours or last 60 semester hours.
- **3** Satisfactory Graduate Record Examination (GRE) scores.

#### **Application**

The following materials must be received before an applicant is considered for admission:

- 1 Completed graduate application.
- **2** Graduate Record Examination (GRE) scores.
- **3** Official transcripts from each postsecondary institution attended (transcripts of coursework completed at Ohio University do not need to be submitted).
- **4** A two-page typed biography that includes information about your background and experience and how they relate to your future career goals.
- **5** Résumé of your educational background and professional work experiences.
- **6** Three letters of recommendation from people who are qualified to evaluate your capability for graduate study. At least one reference must be from an individual who

can attest to your qualification in your chosen field and one from an academic faculty member who can support your ability to produce successful academic work at the graduate level. Please be certain to identify intended concentration prior to giving the form to the individual providing the reference.

Submit your completed application, GRE scores, transcripts, and application fee to the Office of Graduate Studies, Ohio University, McKee House, Athens OH 45701-2979.

The biography, résumé and letters of recommendations should be sent directly to the graduate coordinator, School of Recreation and Sport Sciences, Ohio University, Grover Center E160, Athens, OH 45701-2979.

Applications for admission are accepted for summer or fall admission. Typically, applications for both admission and financial aid for the next academic year must be received by March 1. International students must also present TOEFL scores (minimum of written 575; computer 233 for consideration) and apply by February 1.

Financial assistance, such as assistantships, is available. Information regarding graduate assistantships can be found on the school's Web site.

#### **Program Requirements**

All Physiology of Exercise degree candidates must complete the following core courses:

#### Required Common Core:

PESS 608	Research Methods and Statistics (S)
PESS 6S6	Advanced Physiology of Exercise (4)
PESS 657	Advanced Physiology of Exercise Laboratory (3)
PESS 658	Topics in Cardiovascular Evaluation (4)
PESS 659	Exercise Metabolism (4)
PESS 660	Advanced 8iomechanics (4)
HCFN 660	Nutrition for Sport and Fitness (4)

#### **Research Concentration**

The research specialization is a two-year program that requires the completion of a master's thesis. This concentration requires the completion of 47 quarter-hours of coursework, which includes six hours dedicated to the completion of the thesis. This program is designed to prepare students to work in an academic or research environment. A strong

background in biological sciences, including organic chemistry, physics, calculus, human anatomy, physiology and exercise physiology is recommended.

In addition to the courses required in the common core, the following courses are also required:

BIOS S42	Principles of Physiology I (3)
BIOS 543	Principles of Physiology II (3)
PESS 609 or BIOS 670 or EDRE 720 or ISE 504	Statistics for Sport Sciences (4) Biostatistics I (5) Educational Statistics (5) Applied Engineering Statistics (3)
PESS 695	Thesis (6)

#### **Clinical Concentration**

The clinical specialization is a five quarter program, designed to prepare students to work as preventative and rehabilitative specialists (as certified by the American College of Sports Medicine [ACSM]) in a variety of settings including corporate fitness programs, wellness centers, fitness clubs, universities, and clinical sites. This concentration requires the completion of 47 quarter-hours of coursework and the completion of comprehensive examinations at the end of the academic program.

In addition to the courses required in the common core, the following courses are also required:

PESS 616	Intro to Sports Physiology & Adult Fitness (4)
PESS 617	Principles of Exercise Prescription (3)
PESS 6S2	Advanced Laboratory Techniques in Sport Physiology and Adult Fitness (3)
PESS 661	Internship in Sport Physiology and Adult Fitness (5-15)

#### Master of Sports Administration

http://www.ohio.edu/rsps/gradsafm.htm

Combining classroom and practical learning, the Ohio University Sports Administration & Facility Management (SAFM) program prepares students for leadership positions in the sport and entertainment industries. The Sports Administration & Facility Management program offers three degree options. The M.B.A./M.S.A. degree is a 22-month (seven quarter) program leading to dual degrees:

Master of Business Administration and Master of Sports Administration. The Master of Sports Administration (M.S.A.) degree is a 12-month (four quarter) program. The J.D./M.S.A. option is a joint degree program with the Capital University Law and Graduate Center leading to a Juris Doctorate from Capital University (Columbus, Ohio) and a Master of Sports Administration from Ohio University. For more information see the SAFM Web site.

While an undergraduate major in business is desirable, it is not mandatory. Work experience and participation in sport/entertainment-related positions are advantageous to being admitted into this highly selective program.

#### Master of Business Administration/Master of Sports Administration (M.B.A./M.S.A.) (limited enrollment) Program of Study

Ohio University's M.B.A./M.S.A. program is a 22-month, 115 guarter hour program. The full-time M.B.A. program is a lock-step 72credit hour, four academic quarter intensive learning program. The program begins on September 1 and ends the following August. Students who are admitted to the program without an undergraduate background in business must begin their M.B.A. study in mid-June with an intensive 10-week prerequisite program. Twelve of the 72 hours will satisfy the requirements of both the M.B.A./M.S.A. programs. Students enrolled in the M.B.A./M.S.A. dual degree program will use their 12 specialization credits to focus on sports/entertainment management, and the fourth quarter (summer) to do their M.B.A./M.S.A. internship. The M.S.A. program requires the completion of 55-credit hours, of which 12 will have been earned while working on the M.B.A. The M.S.A. curriculum is interdisciplinary, allowing students to concentrate in areas related to communication, finance, higher education, journalism, management, and/or marketing. The M.B.A. program is fully accredited by the American Assembly of Collegiate Schools of Business. Additional information on the Ohio University Master of Business Administration can be found in the College of Business section of this catalog. New enrollment in the M.B.A./M.S.A. dual-degree program is limited to 25 students per year. For more information

http://www.cob.ohiou.edu/www/grad/mba/html

contact the College of Business at

## Master of Sports Administration (M.S.A.) Program of Study (limited enrollment)

Prospective students with earned graduate degrees in law or business, may be considered for the one-year M.S.A. program. The M.S.A. program requires the completion of 5S credit hours—50 hours earned in at least three academic quarters of residence at Ohio University followed by a S-credit hour internship.

While each student's M.S.A. curriculum is unique, most concentrate on communications, higher education, journalism, management, marketing, and/or facility management. The internship lasts from three months to a year and may include such areas as public relations, promotions, fund raising, ticket sales, event operations, sports information, and business management. Internship opportunities have been provided by more than 400 different organizations throughout the world, including professional teams, corporate services, sports facilities, arenas, and collegiate programs.

#### Juris Doctorate/Master of Sports Administration (J.D./M.S.A.) Program of Study

With increasing frequency, sports administration and facility management professionals are faced with a wide variety of legal issues. The combination of a law degree and an M.S.A. can provide graduates with further flexibility in pursuing career opportunities. Ohio University's Sports Administration & Facility Management Program and the Capital University Law and Graduate Center, located in Columbus, Ohio, have created a joint degree program that allows students to enroll cooperatively in both programs and complete both degrees with a reduction in total credit hours. To qualify, you must apply and be admitted to both programs, and both institutions must approve your proposed curriculum. Admitted students normally enroll first at Capital University Law and Graduate Center and then transfer to Ohio University following the fall semester of their third year. For more information, contact Capital University Law and Graduate Center at http://www.law.capital.edu/

#### **Eligibility to Apply**

You must meet the following require-

ments for eligibility and consideration for unconditional admission to the School of Recreation and Sciences graduate program in sports administration and facility management:

- **1** Earned bachelor's degree from an accredited college or university.
- **2** Minimum overall undergraduate grade-point average (g.p.a.) of 3.0 on a 4.0 scale on last 90 quarter hours or last 60 semester hours.
- **3** Satisfactory scores on the Graduate Management Admission Test (GMAT), or Law School Admissions Test (LSAT).

#### **Application**

The following materials must be received before you can be considered for admission:

- 1 Completed graduate application.
- **2** Graduate Management Admission Test (GMAT), or Law School Admissions Test (LSAT) scores. If you are applying as part of the joint degree program with Capital Law School, you may submit LSAT scores; otherwise you must submit GMAT scores.
- **3** Official transcripts from each postsecondary institution attended. (You do not need to submit transcripts of coursework completed at Ohio University.)
- **4** A two-three page typed statement of professional goals that includes information about your background and experiences and how they relate to your future career goals.

  The statement should include a discussion of:
  - your two most substantial accomplishments and why you view them as such
  - a leadership situation in which you were involved and what you learned from the experience, and
  - an ethical dilemma you have experienced and how you handled the situation
- **5** A résumé including your educational background and professional work experience.
- **6** Three letters of recommendation. At least one of your references must be an individual who can attest to your qualifications in your chosen field and one from a faculty member who can support

your ability to produce successful academic work at the graduate level.

Your completed application, GMAT or LSAT scores, application fee, transcripts, goal statement, résumé, and letters of recommendation should be sent directly to Sports Administration and Facility Management Program, School of Recreation and Sport Sciences, Ohio University, Grover Center E148, Athens OH 45701-2979.

#### **Application Deadline**

Students are admitted for summer or fall quarter and must complete the application process by **February 1**. The final phase of the admissions process involves an oncampus interview at your expense. You will be notified of your selection for an interview and the scheduled date once all items listed above have been received.

International students are admitted for summer quarter only. You must complete the application process by February 1, including the presentation of your TOEFL scores (minimum of 600 written; 250 computer for consideration). As enrollment is competitive, preference for international student admissions is given

enrollment is competitive, preference for international student admissions is given to applicants who are sponsored by sports organizations, colleges or universities, or government agencies. If you are applying from outside North America, you will be interviewed by telephone at your expense and will be notified of the date, time, and telephone number for the interview once all items listed above have been received.

All application materials must be received by the appropriate deadlines.

Financial assistance, such as assistantships, is available. Information regarding graduate assistantships can be found on the school's Web page.

## Program Requirements for the M.B.S./M.S.A. program:

W.B.S./W.S.A. program.		
BA 697	Independent Research (5)	
BUSL 565	Sports Law (4)	
MBA 601	Core I (14)	
MBA 602	Core II (14)	
MBA 603	Core III (14)	
MGT 697	Independent Research (4)	
SAFM 660	Internship (9)	
SAFM 667	Human Resource Management in	

Sport Organizations (4)

SAFM 691 Seminar (4)

SAFM 693 Seminar in Sports Administration (8) (specified topics for SAFM 693A-Z will vary by year and quarter)

Electives will be determined in consultation with your advisor, based on your specific professional goals.

## Program Requirements for the M.S.A. program:

BUSL S6S Sports Law (4)

SAFM 660 Internship (S)

SAFM 691 Seminar (4)

SAFM 693 Seminar in Sports Administration (4) (specified topics for SAFM 693A-Z will vary by year and quarter)

Electives will be determined in consultation with your advisor, based on your specific professional goals.

#### Courses

#### **Athletic Training Education (RSAT)**

S18A Instructional Experience (1–S) Prereq: perm.

S18B-Z Special Programs (1-15)

- 600 Guided Independent Study (1–2, max 2) Selected areas of study with written report based on research.
- 605 Manual Muscle Testing and Function (4) Prereq: NATA certification; athletic training major. Focuses on the art and science of manual muscle testing. Emphasis placed on the effects of muscle imbalances and weakness on body alignment and function with preventive interventions being incorporated. 3 lec., 2 lab. Deivert; Su; Y.
- **610** Orthopedic Assessment (4) Methods of objective evaluations of effects of neuromuscular impairment injuries and measurement of changes in neuromuscular functioning. 3 lec, 2 lab. *F;* Y.
- 611 Special Problems (1–6)
  Individual research and experimentation of professional issues. Identifies pertinent problems and plans effective attack toward potential solution.
- 620 Therapeutic Exercise:
  Theory and Application (4)
  Advanced techniques in prevention, management, and rehabilitation of athletic injuries.3 lec, 2 lab. W; Y.
- 625 Therapeutic Modalities: Theory and Application (4) Advanced techniques in the principles and practical skills of therapeutic modalities. 3 lec, 2 lab. *Sp; Y.*

## 630 Injury Prevention Techniques in Sports Medicine (3) In-depth study of evaluating and developing conditioning techniques and programs for

conditioning techniques and programs for prevention of athletic injuries. 3 lec. W; Y.

63S Seminar in Sports Medicine Problems (3) Thorough examination of problems that exist in sports medicine as reviewed by various allied health professions. 3 lec. Sp; Y.

#### 640 Administrative Aspects of Sports Medicine (3)

Prereq: NATA certification; athletic training major. Provides the opportunity to develop decision-making skills, communication skills, and strategies for service delivery in various clinical settings (educational institution, clinic, hospitals). 3 lec. Deivert; Su; Y.

#### 645 Emergency Management of Athletic Trauma (3)

Prereq: NATA certification; athletic training major. Focuses on the specialized care required for serious trauma and life-threatening athletic injuries. Advanced techniques of initial recognition, prehospital emergency care, treatment, and preparation for transportation are explored. 2 lec, 2 lab. *Deivert; Su; Y.* 

#### 650 Practicum (1-5, max 5)

Supervised work experience in various aspects of administration and operation of athletic training programs.

#### 651 Medical Aspects (3)

Study of functional and structural changes in tissues and organs caused by athletic injury. 3 lec. F; Y.

#### 691 Seminar (4)

Research and investigation in athletic training. Topics and problems suitable for thesis writing, methods of research, writing practice, and critical analysis of outlines for research study. D.

## Physical Education and Sport Sciences (PESS)

#### 500 Women in Sports (3)

Examines the role of play, sports, and games in life of women. Explores place of women in sports world, and reflects on special attitudes and structures of women's sports. 3 lec.

## 504 History and Principles of Physical Education (4)

Prereq: major/minor. Origins and development of physical education and sport from time of primitive people through Greeks, Romans, Germans, English, and Americans; biological, psychological, sociological, and curricular principles underlying modern physical education program. 4 lec.

508 The 8lack Athlete and American Sport (3) Explores origins of black athlete's participation in American sport and examines role of black men and women in growth of American sport and physical activity during 19th and 20th centuries. 3 lec. *A;* Cook.

#### 511 The Olympic Movement (3)

Study of origin and development of games from Greek era to modern period. Meaning of Olympism in relation to contemporary summer and winter Olympiads explored. 3 lec. A; Cook.

#### 514 Physiology of Exercise (4)

Prereq: athletic admin. or teach/coach or physical education or sport physiology major. Fundamental concepts describing reaction of organ systems to exercise; study of work produced by muscle. Special areas include sport conditioning, muscular fatigue, physiology, and nutrition in exercise; weight control and exercise; physical fitness; exercise and environmental stresses; review of recent research in exercise physiology and human performance. *Gilders; F. Sp; Y.* 

515 Physiology of Exercise Laboratory (3) Prereq: BIOS 34S. Lab experience to complement material covered in 514. F, Sp; Y.

518A Instructional Experience (1–5) Prereq: perm.

5188-Z Special Programs (1-15)

521 Principles of Aging and Physical Activity (4) Students develop knowledge and skills involving physical activities for older adults. Information concerning the effects of the aging process on physical activities, benefits of physical activities, physical activity instructional considerations, principles of physical activity

programming, and physical activity strategies are presented. A lab component is included. 3 lec., 2 lab. *VanDerveer; Sp; Y.* 

#### 585 Motor Development (3)

Seminar in motor development in preschool and primary grade children. Special emphasis on practical application of theory and research findings to areas of movement performance and learning readiness. 3 lec.

#### 593 Research Dynamics: Planning, Participation, and Actualization of the Research Process (1-6)

Prereq: Perm. A hands-on approach to research: developing the idea, establishing the methodology, collecting data, doing the statistical evaluation and writing the results in publication format. Deivert; F. W. Sp. Su; Y.

600 Guided Independent Study (1–2, max 2) Selected areas of study with written report based on research.

#### 602 Seminar on International Sport (3)

Review of selected physical education and sport programs in various countries and discussion of issues and problems related to international sport competition. 3 lec. Cook; Sp. Y.

#### 604 Administration of Interscholastic Athletic Programs (4)

Embodies practical methods and innovative techniques needed by interscholastic athletic administrators. Topics an dconcepts presented are directly related to the responsibilities undertaken by athletic program personnel who guide adolescent and young adult participants. 4 lec.

605 Utilizing Technology in Sport Sciences (4) Provides opportunities for graduate students in M.S.R.S.s. concentrations for advance skill development in current technological techniques appropriate to their career orientations. 3 lec., 2 lab. D.

## 606 Organization and Administration of Physical Education and Sport (4)

Theory and practice in organizing and administering various physical education, intramural, athletic, sport, and recreation programs at public school, college, and community levels. 4 lec. Cook; W; Y.

## 608 Research Methods and Statistical Applications in Recreation and Sport Sciences (4)

Offers operational understanding of research, evaluation methods, and statistical applications in recreation and sport sciences in order to produce better consumers of research-based information and to give students the opportunity to prepare for advanced graduate study. 5 lec. F. Su; Y.

609 Applied Statistics in Sport Sciences (4) Review of descriptive statistics, introduction to use of computers, inferential statistics, class problems, using data collection, computer input, and statistical analysis. 4 lec. Bullard, Mittlestaedt; W; Y:

610 Curriculum in Physical Education (4)
Consideration of curricular trends and theories for today and for future. Construction and development of curricula for elementary, secondary, or college and university levels. 4 lec. Carr.

#### 611 Special Problems (1-6)

Individual research and experimentation of professional issues. Identifies pertinent problems and plans effective attack toward potential solution.

## Applied Biomechanics of Sport and Physical Activity (4)

Investigation of biomechanical principles involved in the performance of selected sports and physical activity. 3 lec., 2 lab. *Bullard; F; Y.* 

## 616 Introduction to Sports Physiology and Adult Fitness (4)

Introduction to a common body of knowledge related to sports physiology and exercise leadership. Emphasis

is on graded exercise stress test administration, basic electrocardiography, and laboratory physical performance tests. 3 lec., 2 lab. *Murray*; F; Y.

617 Principles of Exercise Prescription (3) Prereq: 616. Study of the underlying principles regarding the prescription of exercise to not only the healthy individual, but also to the sedentary as well as the diseased individual. 3 lec. Murray; W; Y.

#### 624 Legal Foundation and Risk Management in Athletics (4)

Legal approach to athletics, athletic injuries, and physical education as studied through investigation of concepts and principles that provide legal framework within which courts view cases bearing on athletics, athletic injuries, physical education, and recreation. 4 lec. *Higgins, W, Y.* 

630 Foundations of Coaching (3)
Synthesizes material covering the numerous responsibilities of coaches and methods of coaching athletes at the youth, interscholastic, and intercollegiate levels. Carr; F; Y.

## 631 Performance and Conditioning for Coaches (3)

Prereq: Perm. An applied exercise physiology course that is designed to provide prospective coaches with an understanding of the physiological changes that occur during physical training in athletics. 2 lec., 2 lab. W.

640 Analyzing Performance in Sports (3) Methods of analyzing performance problems in physical education (process of analyzing performance problems will include identification of source of problem, specifications of solutions, intervention tactics, and evaluation of behavior change). 3 lec. Carr; W; Y.

#### 642 Ethics in Sports (4)

Discussion and identification of ethical conduct in sport pertaining to prospective administrators, coaches, teachers, and officials. Focus on appro-priate actions in conducting, organizing, teaching, and coaching activities. 4 lec. *Sp; Y.* 

#### 650 Practicum (1–5, max 5)

Supervised work experience in various aspects of administration of intercollegiate and interscholastic athletics.

Advanced Laboratory Techniques in Sport Physiology and Adult Fitness (3)

Prereq: 616, 617. Advanced laboratory techniques refining and integrating cognitive and practical/experiential skills used in sport physiology, adult fitness/cardiac rehabilitation, and clinical exercise physiology environments. 1 lec, 4 lab. *Murray*; *Sp*; *Y*.

- 654 Management and Leadership in Sport (4) Contemporary theories related to management and leadership in sport are examined, and their applications to sport are addressed. 4 lec.
- 655 Psychology of Coaching (3) Analysis of psychological factors and principles with special reference to emotional, attitudinal, and personality problems of athletes. 3 lec. Carr; Sp; Y.
- 656 Advanced Physiology of Exercise (4) Prereq: PESS 514, 515 or BIOS 545, 546. Expands students' knowledge base related to the physiological factors that limit human function and performance. 4 lec. F: Y.

#### 657 Advanced Physiology of Exercise Laboratory (3)

Prereq: PESS 6S6 concurrent. Allows students to develop and apply advanced laboratory techniques and methods in exercise physiology. 6 lab.  $F_i$  Y.

658 Topics in Cardiovascular Evaluation (4) Prereq: 616. In-depth lecture in electrocardiography, as well as other noninvasive techniques used in assessing cardiovascular function. 4 lec. Murray, W; Y.

#### 659 Advanced Biomechanics (4)

Prereq: PESS 514, 515. Encompasses information on the specifics of equipment, data collection, and signal processing using the measurement tools of biomechanics. Students will collect EMG data, force related data, and 3-dimensional video data; learn appropriate data processing/signal processing techniques, synthesize two different collection techniques, and relate the information to the movement chosen to analyze. 2 lec., 4 lab. *Sp; Y.* 

#### 660 Advanced Biomechanics (4)

Prereq: S14, S15. Encompasses information on the specifics of equipment, data collection, and signal processing using the measurement tools of biomechanics. Students experience collecting MEG data, force related data, and 3-dimensional video data. After data collection, students learn the appropriate data processing/signal processing techniques, synthesize 2 different collection techniques, and relate the information to the movement chosen to analyze. 2 lec., 4 lab.

## 661 Internship in Sport Physiology and Adult Fitness (5–15)

Prereq: major in sports physiology and adult fitness. Supervised professional work experience in affiliated sports physiology or clinical sites with the opportunity to serve in the dual capacity of exercise technician and/or exercise leader. Internships will be a minimum of 10 weeks and will be structured/designed to meet your interests. Murray, Su; Y.

- 686 Motor Performance of the Exceptional Child (4) Emphasizes skills and theory related to teaching physical education to children and youth who exhibit variety of handicapping conditions. Professional and advocacy responsibilities in planning and implementing psychomotor aspects of individualized education programs will be taught. 4 lec.
- 688 Contemporary Issues in 5port 5ciences (4) Selected Issues in sport sciences are discussed. Course involves research reading, analysis, and written reports. 4 lec. Carr; Sp; Y.
- 690 Readings in Athletic Administration (3) Prereq: perm. Required of all students entering graduate study in athletic administraton who do not have an undergraduate degree in physical education, sports management, or similar major. Content includes readings in youth sport, school-based sport, the NCAA, facility design and management, Olympic sport, coaching, gender issues, sports marketing, finance, and governance issues. Students work independently and submit written summaries of selected readings. 3 lec. Carr, F. W, Sp., Su; Y.

#### 691 Seminar (4)

Research and investigation in physical education and sport sciences. Topics and problems suitable for thesis writing; methods of research; writing practice; and critical analysis of outlines for research study. 4 lec. *Bullard; F, W; Y.* 

695 Thesis (1–15) Prereq: perm.

#### **Recreation Studies (REC)**

#### 518A Instructional Experience (1-5)

Prereq: perm. Supervised practice in organizing and teaching activities in college and recreational settings. F. W, Sp., Su; Y.

#### 5188-Z Special Programs (1–15)

Courses designed to provide the recreation major or professional unique experiences and instruction in specialized topics. Courses designed as short-term, mini-courses, seminars, or specialized workshops. F. W. Sp. Su; D.

#### 560 Understanding Leisure (4)

Designed to explore meaning, theories, and development of play from infancy through middle childhood. 4 lec. D.

600 Guided Independent Study (1–2, max 2) Selected areas of study with written report based on research.

#### 601 Contemporary Issues (4)

Selected problems in recreation programs; research reading, discussion analysis, written reports. 4 lec. *VanDerveer; W: Y.* 

#### 611 Special Problems (1-6)

Individual research and experimentation of professional issues. Identifies pertinent problems and plans effective attack toward potential solution.

- 649 Administration of Community Recreation (4) Administration of public recreation services; programs and facilities; fiscal considerations including grant writing; and legal considerations. 4 lec. W, Su; Y.
- 650 Practicum (1–5, max 5)

Supervised work experience in various recreation settings.

#### 675 Adventure Programming (3)

Principles and procedures involved in planning, organizing, and conducting various types of outdoor adventure activities in national/state/private facilities. 3 lec., 1 lab. Zuefle; Sp; Y.

#### 590 Readings in Recreation Studies (3)

Provides students with a degree in a related field basic background information about the recreation studies professional field. Intended to provide students with some foundational understanding to assist them in their graduate course work. F. W. Sp., Su.

#### 691 Seminar (4)

Research and investigation in recreation. Topics and problems suitable for thesis writing; methods of research; writing practice; and critical analysis of outlines for research study. Zueffle; D.

## Sports Administration and Facility Management (SAFM)

- 600 Guided Independent Study (1–2, max 2) Prereq: major/minor. Selected areas of study with written report based on research.
- 607 Problems of Competitive Athletes (3) Prereq: major/minor. Analysis of problems associated with athletic competition at all age and performance levels. 3 lec. Kreutzer; Sp; Y.
- 610 Athletic Administration Seminar (4) Introduction to various aspects of intercollegiate /interscholastic athletic administration. Responsibilities of athletic director, business manager, sports information director, athletic trainer, ticket manager; facility construction and management, security, crowd control; and facility utilization are presented

#### 611 Special Problems (1-6)

Individual research and experimentation of professional issues. Identifies pertinent problems and plans effective attack toward potential solution.

and discussed. 4 lec. Higgins, Kreutzer, W, Su; Y.

#### 612 Computer Applications in 5ports Administration (5)

Teaches use of software to solve problems and handle situations in sports administration and facility management. 3 lec., 4 lab.

- 626 Sport Governance and Policy Development (4) Develop an understanding of the governance structure of the sport industry. Roles, functions, and policies of international and national sport organizations are reviewed and analyzed. 4 lec.
- 645 Facility Management and Programming (3) Principles and requirements related to programming and managing various types of public facilities. 3 lec. Franklin, Reese; W, Sp; Y.
- 646 Facility Management Lab (1–2)
  Prereq: 645. Supervised practical experience in

the administration/operation of an actual special event. 2-4 lab.

#### 647 Athletic Fund Raising (3)

Techniques of fundraising to prepare individuals to assume the responsibility for programs of fundraising in different types of organizations, both public and private. 4 lec. Kerkian; W; Y.

#### 650 Practicum (1-5, max 5)

Prereq: perm. Supervised work experience in various aspects of administration of intercollegiate and interscholastic athletics.

#### 655 Sports and Sports Consumers (4)

Prereq: SAFM major. Introduction to funda-mentals and dynamics of the relationships that exist among sports organizations and their varied consumers; and the application of these fundamentals to sports and sports related organizations. Primary focus on planning and implementing organizational strategies and programs to enhance relationships with consumers and consumer groups. 4 lec. Kreutzer; F; Y.

#### 657 Sponsorship in Sports (4)

Prereq: 655. An analysis of the current factors and issues related to sports sponsorship, including sponsorship planning, sales and negotiations, and sponsorship proposals and evaluations. Students will prepare a comprehensive sponsorship plan for a sports or sports-related property. 4 lec. Kreutzer, W; Y.

#### 659 Licensing in Sports (4)

Prereq: BUSL 565. A managerial approach to licensing sports products and services. Students will learn to move sports products and services through licensing channels from concept to project completion. 4 lec. Sp; Y.

- 660 Internship in Sports Administration (1–15) Prereq: MSA or MBA/MSA major. Supervised professional work experience in approved sportsoriented organization. Kreutzer; F, W, Sp, Su; Y.
- 665 Governance in Intercollegiate Athletics (4) Prereq: SAFM major. Introduction to structure, dynamics, and principles of governance for intercollegiate athletics. Focuses on institutions which are members of the National Collegiate Athletic Association (NCAA); however, discussion regarding other governing bodies may be included. 4 ler. F: Y

#### 667 Human Resource Management in Sport Organizations (4)

Prereq: MBA/MSA majors only. Introduction to managing human resources in sport organizations. Various aspects of managerial functions and human behavior in sport organizations, such as communication, staffing, appraising, training and development, compensation, leadership, negotiation, motivation, and decision making will be addressed. 4 lec. M. Brown; Sp; Y.

## 670 Financial Administration of Sport Facilities and Programs (4)

Examines financial information necessary to perform the usual duties and responsibilities associated with sports facilities and programs. 4 lec. *M Brown; F, W, Sp;* Y.

#### 691 Seminar (4)

Prereq: major/minor. Research and investigation in athletic administration. Topics and problems suitable for thesis writing; reviews of completed research, development of questionnaires, position papers, and evaluative instruments applicable in athletic administration. 4 lec. M. Brown, Kreutzer, F; Y.

## **693A-Z Seminar in Sports Administration (1-5)** Examination of current trends and issues in the

study of sports administration. Different perspectives on these trends and issues will be studied by drawing on current literature and research for indepth analyses and discussion. 1-S lec. Kreutzer, F, W, Sp, Su; Y.

## Center for International Studies

Josep Rota Director

http://www.ohio.edu/internationalstudies/

The Center for International Studies is the nexus for global and area studies and activities at Ohio University. The center's interdisciplinary teaching, research, publications, service, and outreach programs bring together faculty and students from all parts of the University—the social sciences, humanities, sciences and professional schools—in Athens and on the regional campuses. Ohio University established the Center for International Studies in 1964; it was founded on the broad belief that an appreciation of others' values and institutions increases mutual understanding, enriches individual lives, and prepares citizens and students for work in the global environment.

The Center for International Studies embodies Ohio University's commitment to international understanding and solidarity and to the development of knowledge and skills necessary for competition in a global marketplace of ideas and jobs. The Center seeks to advance its mission through interdisciplinary academic programs and activities; faculty development; the encouragement and promotion of research; the development of library resources; outreach to the community; the cultivation of solidarity with other peoples and cultures, particularly with the developing regions of the world; and the maintaining and strengthening of faculty area and international expertise in collaboration with other academic units. Through the Office of the Associate Provost for International Programs, the Center for International Studies coordinates Ohio University's international programs and activities.

The Center's African Studies Program has been designated a U.S. Department of Education National Resource Center since 1994. Both Africa and Southeast Asian Studies are the recipients of other federal and foundation grants that support program activities. The Center's nationally known Monograph in International Studies series makes available more than 100 scholarly titles relating to Africa, Latin America, and Southeast Asia.

## M.A. Program in International Affairs

The Center's goal is to maintain and strengthen national benchmarks of excellence in area studies and studies of development policy and practice, while promoting the synergy that results from our unique combination of the two. Programs are centered on an interdisciplinary curriculum that combines the traditional foundations of the social sciences and the humanities with strategic linkages to the natural sciences and all of Ohio University's professional colleges. In support of the curriculum, programs emphasize utilization of new information technologies, the acquisition of professional skills, the development of language competency, and the cultivation of abilities that lead to good professional practice. Upon graduation students receive a Master of Arts degree awarded by the Center for International Studies.

#### **General Requirements**

Students must complete a minimum of 70 credit hours (73 credit hours in Latin American Studies). At least 40 credit hours must be devoted to core courses. The remainder is used to build an individualized, professional skills minor. A mandatory two-hour course requirement for all programs, International Studies (INST) 500: Introduction to Graduate Study, is offered in the fall quarter.

Depending on the program, one of the following is required to complete the degree: a comprehensive written exam, a comprehensive oral exam, or a project/research/grant proposal. This ordinarily takes place in the last quarter of study excluding summer. Guidelines are available from individual programs.

A thesis option is also available. The number of credits granted for the thesis (up to a maximum of 10) is determined by the student's advisory committee. Theses Guidelines are available on the Center's Web site.

All students in the M.A. program must maintain a minimum grade-point average (g.p.a.) of 3.0. If the g.p.a. falls below this level, students will be placed on academic probation. If the g.p.a. is not raised by the end of the following term, the student will not be permitted to continue in the program. University policy prohibits awarding any type of financial assistance to students on academic probation. Should a student receive more than two grades below a "B," the director reserves the right to drop the student from the program. A grade below "C" will not count toward the degree requirement.

#### **Language Proficiency**

Each student is required to demonstrate an acceptable level of achievement in a foreign language appropriate to the area of concentration. For non-European languages, this may be accomplished either by a) satisfactorily completing a minimum of one academic year in one of the following languages: Gikuyu, Indonesian/Malay, Khmer, Siswati, Somali, Swahili, Thai, Twi, or Vietnamese, or b) taking an examination in a language not taught at Ohio University or demonstrating an acceptable level of achievement on an examination administered by other recognized testing agencies. For students in concentrations offering a European language, an intermediate level of proficiency is required.

**Note:** Latin American Studies offers Portuguese through the enhanced language skills option. Southeast Asian Studies requires two years of coursework or its equivalent in a Southeast Asian language.

#### Admission

Persons interested in applying for admission must have a bachelor's degree from an accredited university and a minimum grade point average of 3.0 on a 4.0 scale or its equivalent, plus the following requirements:

- **1.** Two completed graduate applications
- **2.** Two official college transcripts from an accredited college
- **3.** \$30 non-refundable application fee (applications will not be processed without fee)

- **4.** Affidavit of support with supporting documentation (international applicants only)
- **5.** Three letters of recommendation (at least two from people who can judge academic abilities)
- 6. Autobiographical sketch
- 7. Statement of purpose (a twopage statement indicating career goals and how the program of study chosen will help meet those goals. Be specific in discussing the aspects of your personal and academic background that may lead to success in the area of study chosen)
- 8. A curriculum vita
- **9.** TOEFL scores (international applicants only)

Things to keep in mind:

- **1** Each program has its own admission committee. Be sure to specify on the application the program for which you are applying
- 2 Individual files will not be reviewed until all relevant documents have been received.
- **3** January 1 deadline: We request applicants submit their completed application and supporting documents so they are received by the January 1 deadline. Admission and funding review will begin shortly thereafter. Later applications will be considered but decisions will be contingent upon availability.
- 4 Most programs admit only in fall quarter. For programs that admit students in other quarters, the standard deadline is June 1 for winter; September 1 for spring; December 1 for summer.
- **5** All International students will be required to take an English proficiency test (which includes composition) when they arrive on campus. The test can be waived if you hold a degree from an American university. If the level of proficiency is not at the \$50 (paper test) or 213 (computer test) level you must enroll in the Ohio Program of Intensive English until you reach the required level. Financial aid cannot be used to pay for English language courses.

#### **Financial Aid**

The five programs under the Center for International Studies annually offer some financial assistance to students. Aid is awarded competitively on the basis of merit including previous academic performance or post-graduation professional or other work experience. Programs also look for geographical, cultural, linguistic and other forms of diversity so that the group of students collectively strengthens the program. The deadline is January 1. The criteria used to award aid are:

- A good undergraduate record
- Strong letters of recommendation
- Appropriateness of background to program of study
- · Work experience
- Special skills

## Curricula and Courses

Degree programs are interdisciplinary and designed to give students freedom to choose courses from a number of fields that best fulfill their academic and professional objectives. Following are brief descriptions of the individual program requirements and a list of core courses appropriate to each area of concentration.

#### **African Studies**

## http://www.ohio.edu/%7EAfrican/main.htm

The African Studies Program at Ohio University is a U.S. Department of Education Title VI National Resource Center for Africa. The African Studies Program provides students, scholars, and members of the broader community with opportunities to develop their understanding of this important world region. Facilities for research and language instruction, as well as formal degree studies, are available through the program. Students may earn a Master of Arts degree with a major in African Studies awarded by the Center for International Studies.

The African Studies Program grew out of the excitement emanating from the decolonization of the continent in the mid-1960s and the awareness of the important role Africa could play in U.S. and world affairs. Today the multidisciplinary nature of the program allows students to build a course of study reflecting Africa's contemporary reality. Themes include the socioeconomic development of the continent in the context of Africa's grand cultural and historical traditions, ecological sustainability, the African family, and a broad array of the African arts. Students may also view the study of Africa as an excellent case-study of the process of social change in the modern world.

#### The Institute for the African Child promotes and coordinates research and advocacy for the world's most marginalized

of population groups—the children and youth of the African continent.

The Ohio University Board of Trustees established the Institute for the African Child in 1998. This new initiative is designed to expand the conversation among African Studies scholars, to include those in the professional fields of communication, education, health and human services, and medicine, to work together on issues that affect Africa's children. Clearly there are no onedimensional problems in the field of children and youth issues in Africa. Our intent is to provide a new crossdisciplinary venue for conferences, fellowships, and collaborative research that will lead to improvement in the living conditions of this important population. The establishment of the Institute for the African Child is also a new opportunity to raise awareness of the impact of the health-education-information nexus on minority children in Africa's Diasporas.

#### **Degree Requirements**

Students are required to complete a minimum of 70 quarter hours of course work. Ohio University departments offering African Studies core courses include Anthropology, African American Studies, Biological Sciences, Business, Communication, Economics, Education, English, Film, Philosophy, Theater,

Environmental and Plant Biology,
Geography, History, International
Studies, Linguistics, Nutrition, Philosophy,
Political Science, and Women's Studies.

Proficiency in an African language is an important element of the African Studies degree and is seen as an essential tool for understanding the culture and working on the continent. The requirement can be fulfilled through a satisfactory FSI score, completion of the proper course work, or evidence of fluency in an African language.

African languages offered at Ohio University include Kikuyu, Siswati, Somali, Swahili, and Twi. A wide variety of languages also are available through Ohio University's participation in the Summer Cooperative African Language Institute (SCALI), a seven-week intensive summer language program.

#### **FLAS Fellowships**

The African Studies Program is pleased to offer Foreign Language and Area Studies (FLAS) fellowships. FLAS fellowships are open to new and continuing graduate students. Applicants must be U.S. citizens or permanent residents. Fellows receive a stipend of \$14,000 plus tuition and fees. FLAS fellows are required to study an African language and carry a full-time academic load of 15-18 graduate units per quarter. Competitive applicants demonstrate a strong Africa career and/or research interest. Applicants should indicate in their "statements of purpose" how the African language study would enhance their research/career goals.

#### **Africa Courses**

ANTH S50	Economic Anthropology
ANTH SS1	Political Anthropology
ANTH SS7	Anthropology of Religion
ANTH 581	Cultures of Sub-Saharan Africa
CLWR 511	Islam
ECON 551	Agricultural Development
ECON 555	African Economic Development
EDAD 703	Administration of Education in Other Countries
EDCI S05	Comparative Cultures and Education
EDCI 506A	Education and Development in

Africa

EDCI S08	Poverty, Education, and International Development
EDLE 710	Cultural and Contextual Foundations of Leadership
EDRE 793	Field Research in Africa
GEOG 531	African Thematic Geography
GEOG 532	Africa: Regional Approaches
GEOG 684C	Seminar in Regional Geography: Africa
HIST 532	History of Women in the Middle East
HIST 53SA	Middle East to 1800
HIST S3SB	Middle East Since 1800
HIST S368	North Africa Since 1914
HIST 538	History of West Africa
HIST S38A	West Africa
HIST S41	Colloquium: African History
HIST 541A	Early Africa
HI5T 5418	Traditional Africa
HIST S41C	Modern Africa: 1890 to Present
HIST S42A	South Africa to 1899
HIST S42B	South Africa Since 1899
HIST 640	Seminar in African History
HCFN S2S	Readings in Food and Nutrition
HCFN 526	World View of Nutrition
NST 610A	Pan Africanism
PHIL S78	African Philosophy
POLS 541	African Politics
POLS 563	The United States and Africa
SISW 571	Elementary-Intermediate Siswati
SWAH S71	Elementary-Intermediate Swahili

EDCL S08

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Check with departments for more offerings.

#### Communication and **Development Studies**

http://www.ohio.edu/commdev/

The Communication and Development Studies program is jointly administered by the School of Telecommunications and the Center for International Studies. Study in Communication and Development stresses the use of communication to promote and support positive social development. The curriculum includes interdisciplinary perspectives on national development, area studies, and training in applied research methods, as described below. Students select an area of specialization from a variety of options such as campaign design, conflict resolution, social marketing, distance education, entertainment-education, environmental studies, new information technologies, participatory research for development, tropical public health, and

radio, television, and multimedia production. Students must also demonstrate proficiency in a language other than English.

#### **Degree Requirements**

The Communication and Development Studies program has a curriculum that allows students to enroll in courses offered by a variety of disciplines across the University. The curriculum requires each student to select courses in: Telecommunications: Area Studies such as Africa, Latin America, or Southeast Asia; individual professional specializations such as public relations, management, or media production; development theory and applications, and research and information tools.

Students have the option of choosing one of two coursework tracks, Language Track (LT) including foreign language study or Non Language Track (NLT) if the student comes into the program with demonstrable proficiency in a language applicable to his or her geographical area of specialization. Tracks do not differ significantly, but rather take into consideration the added coursework for those following the language track.

In the second year, students work in teams to design and execute a formal communication campaign. Each student must also complete a field study or internship. All demonstrate proficiency in a language applicable to the geographic area of study. Normally, two years are required to complete the 70 credit-hour minimum required for both coursework tracks.

#### Course Concentration

- All first year students must enroll in Introduction to Graduate Studies (INST S00) in the fall quarter
- · Communications Core: Five courses
- · Development Theory: Colloquium and one course (LT) or two courses (NLT)
- · Area Studies: Three courses
- Development Specialization: Three courses (LT) or four courses (NLT)
- Capstone Project (2nd Year): 4 credit hours
- Internship/field Study: 0-5 credit
- · Foreign Language: Three courses (LT only)
- · Demonstrated proficiency in a second language (NLT)

#### **Communications Components** Communication and National

TCOM 601	Introduction to Mass Communication Research
TCOM 602 or	Quantitative Research Methods
TCOM 603	Qualitative Research Methods
TCOM 770	Mass Communication Theory

Development

#### **Development Theory Components**

In addition to attending colloquium, students select courses that directly or indirectly focus on development and social change. Courses must be approved by the director before enrollment. You may refer to the Development Studies core course list for possible options.

#### **Area Studies**

**TCOM 582** 

Regional area studies courses concentrating in Africa, Southeast Asia, or Latin America can be chosen from course lists available from each area studies program. Programs may also be developed in other geographical areas such as South Asia, Eastern Europe, Middle East, etc. in consultation with the director.

#### **Development Specialization**

The development specialization is conceived as a professional skills component. Selection of courses depends upon each person's goals and objectives. These goals are to be formulated during the first quarter of study. Examples of possible specialization areas include: Tropical Public Health, Communication and Campaigns, Development Planning, Urban Development, International Development Administration, International Journalism, Film Production, Multimedia Production, and Economic Development. Please bear in mind that these are only a few examples. Students are encouraged to work with the director in planning their specialization.

#### Proficiency in a Second Language

Please see Center for International Studies criteria to meet this requirement.

Admission is in the fall quarter only (September).

#### International Development **Studies**

http://www.ohio.edu/ developmentstudies/

Through the Center for International Studies, Ohio University offers a program leading to the Master of Arts degree awarded by the Center for International Studies. The program is designed for those who have background and interest in the Natural Sciences (including Biological, Health, and Environmental) or the Social Sciences, and who wish to incorporate one or more of these disciplines into the field of international development.

The program provides a broad perspective examination of issues related to growth, change, and globalization in developing countries and poor regions of the world. A multidisciplinary approach focuses on combining theory, practical application, research, and implementation skills to produce graduates who are catalysts for international development.

International Development Studies emphasizes flexibility with opportunities to build a program tailored to individual needs and interests. Students build upon a core curriculum by specializing in one of three disciplinary concentrations:

#### International Development and **Social Sciences**

There are numerous economic, environmental, social, and political challenges facing developing countries today. International development becomes a vast multidisciplinary area of concern and action and embraces a multitude of approaches. The International Development and Social Sciences concentration prepares students to study and analyze a broad scope of issues facing developing nations and poor communities today within the conceptual framework of economics, political science, sociology, anthropology, and geography. Particular attention is paid to courses and development approaches that are designed to serve and enhance the capability of communities to further their own social, political, and economic goals.

#### International Development and Health

As expressed in the United Nations Declaration of Human Rights, health is a basic human right that resides within the context of human and social development. Because it reflects wider social, economic, and political influences, health should be approached in an integrated manner. The concentration in International Development and Health explores global health problems that affect developing nations. It provides students with an understanding of the field of health and international development while considering the important contribution that a healthy population makes to its own social and economic development process.

#### International Development and the Environment

Environmental problems and degradation pose a growing threat to the well being of people throughout the world. Workable solutions must focus on how humans and their social and economic interests interact with the resources of the natural environment. The concentration in International Development and the Environment is designed to provide students with an understanding of how people perceive and utilize the environment and how various processes involving the relationship between human beings and their surroundings either damage or protect the environment. This program challenges and prepares professionals to take action in response to environmental issues facing developing countries.

#### **Degree Requirements**

- 1. 70 hours approved coursework including:
  - 20 hours core courses
  - 10 hours methods
  - 15 hours development electives
  - 25 hours disciplinary concentration
- 2. Language proficiency
- 3. Preparation of grant proposal or thesis. Each student is required to complete either a grant proposal or thesis. Candidates choosing the proposal option will develop a grantproposal addressing a need in a particular developing region of the world. Candidates who choose the thesis option are expected to complete

a course of study that culminates in a scholarly work of publishable quality.

#### **Core Courses**

The program core is structured around a progressive series of pro-seminars, colloquia, and courses in development for 20 credit hours. These courses deal with concepts, issues, and methods of development and draw on the worldwide interests and experiences of students, expert faculty, and visiting scholars and specialists. The courses listed under "methods" and "development" reflect the spirit of the requirements; other courses may apply as well.

INST 500	Introduction to Graduate Study
GEOG 529 or	World Economic Geography
GEOG 539	Geographic Patterns of Developing Nations
INST 610D	Pro Seminars and Colloquia in Development

Methods Courses (minimum 10 credit hours or 2 courses) CS 590 Computer Science for Non-Majors **EDRE 501** Introduction to Research Method ECON 501 Statistical Foundations **ECON 502** Microeconomics **ECON 503** Macroeconomics **GEOG 570 GIS** Applications **GEOG 571** Quantitative Methods **GEOG 578** Principles of GIS INCO 701 Research Designs in Communication POLS 582 Quantitative Political Analysis PSY 520 Elementary Statistics

SOC 654

**TCOM 602** 

**TCOM 603** 

Development Co (minimum 15 cre AAS 530	
ANTH 571	Ethnology
ECON 550	Economics of Development
EDCI 508	Poverty, Education, and International Development
GEOG 6B0	Third World Development and the Environment
POLS 540	Politics of Developing Areas
SOC 518	Third World Development
5OC 565	Social Change

Social Research Methods

Quantitative Research

**Oualitative Research** 

5OC 600

Health

HCFN 525

Work and Gender in Global Perspective

Readings in Food and

Nutrition

#### **Disciplinary Concentrations** (minimum of 25 credit hours)

	HCFN 526	World View of Nutrition
	HCFN 529	Community Nutrition
	HCFN 533	Food Sanitation and Safety
	HCFN 590	Human Nutrition
	HCFN 610	Maternal and Child Nutrition
j	HLTH 512	International Health Programs
	HLTH 527	Health of Women
	HLTH 620	Bioethics in Health Care
	HLTH 630	Epidemiology in Health Planning
	MICR 511	General Microbiology
	MICR 51B	Epidemiology
	MICR 544	Tropical Disease Biology
	MICR 682	Medical Entomology
	MICR 541A	Parasitology
	PSY 715	Psychology of Human Differences
	SOC 525	Sociology of Food Production

Environment ANTH 579	Human Ecology
BIO5 581	Conservation Biology
BUSL 570	Environmental Law
ECON 513	Economics of the Environment
ECON 514	Natural Resource Economics
GEOG 517	Landscape Ecology
GEOG 521	Population Geography
GEOG 538	Geography of Southeast Asia
GEOG 540	Environmental Impact Analysis
GEOG 544	Agricultural Ecosystems
GEOG 547	Resource Management
GEOG 550	Land Use Planning
GEOG 553	Environmental Planning
GEOG 555	Geography of Latin America
GEOG 6B0	Third World Development and the Environment
PBIO 521	Agricultural Ecology

#### Social Sciences

PRIO 522

**PBIO 525** 

POLS 555

POLS 556

5OC 525

A very large number of courses in diverse areas fall within this disciplinary concentration. Many thematic groups of courses are possible: Business, Culture, Communication, Economic Policy, Education, Gender, Politics/Public Policy, as well as area studies in Africa, Latin America, and Southeast Asia.

Tropical Ecology

Resource Policy

**Environment and Natural** 

International Organizations

Sociology of Food Production

Plant Ecology

Seminar in Regional

**GEOG 684A** 

#### **Certificate Programs**

While pursuing the MA degree in International Studies, it may be possible to fulfill the requirements of one or more of the available certificate programs which include Conservation Biology, Contemporary History, Gerontology, Health Policy, and Women's Studies.

#### Internships

Internships are strongly encouraged. Such an experience with a domestic or international development organization allows the student to put into practice what has been learned from the program. Modest funds are available, on a competitive basis, to support local internships and research travel.

Entry is only available in the fall quarter (September).

#### Latin American Studies

http://www.ohio.edu/latinamerican/

This interdisciplinary program allows the student to explore the cultural, institutional and structural realities of Latin America in depth and is designed for individuals who wish to expand their expertise regarding this important world region.

The program maintains solid teaching and library strength concerning both South and Central America. In regard to South America, it has strong institutional relations with-and faculty interest in-Brazil and Ecuador, and excellent library holdings for the whole region. It is especially known, however, for its strength in the area of Central America, where strong faculty interests and numerous publications are informed and enriched by an outstanding library collection. Among other things, the library features a large and varied microfilm/fiche collection of U.S. diplomatic records.

The Latin American Studies Program is actively career oriented. Over four-fifths of its graduates find careers in or related to Latin America in areas such as teaching, non-governmental organizations, government service, business, and communication. The special, second Iberian language option, as well as the skills minor, greatly

enhances graduate's employment options. In addition, the program works to find its candidates Latin America-related internships in Washington, other cities in the United States, and in Latin America. Participation in internships is encouraged and earns academic credit towards the 73-hour graduation requirement.

#### **Degree Requirements**

The program is designed to allow students to acquire or expand multidisciplinary knowledge, expertise and language skills concerning Latin America. Students must complete seventy-three credit hours of course work including forty in explicitly Latin American-focussed material, twenty-five in a "skills minor" (a non-Latin American theme or discipline), two three-hour seminars, and one two-hour introduction to graduate studies. In addition, students must be competent in at least one of the region's Iberian languages.

Enhanced Language Skills Option: To compliment the program's stress on both Spanish and Portuguese Latin America—and since over eighty percent of our students enter with competency in one of the two Iberian languages—students are urged to acquire competency in the other language by taking either second year Spanish or accelerated Portuguese. No credit towards degree requirements is given for coursework taken in the first Iberian language (Spanish or Portugese). Credit is given for course work in acquiring a second Iberian language provided the student has reached certified competency.

#### **Core Courses**

AH 531	Pre-Columbian Art	
ANTH 545	Gender in Cross-Cultural Perspective	
ANTH 566	Cultures of the Amazon (The Amazon)	
ANTH 567	South American Prehistory	
ANTH 570	Mexican/Central American Prehistory	
ANTH 583	Cultures of Latin America	
ECON 554	Latin American Economic History	
ECON 574	Economics of Latin America	
GEOG 535	Geography of Latin America	

GEOG 684A	Geography: Latin America
HIST 523A	Latin America: The Colonial Era
HIST 523B	Latin America: The 19th Century
HIST 523C	Latin America: The 20th Century
HIST 524	Seminar U.S./Latin America Relations
HIST 525	Lecture U.S./Latin America Relations
HIST 526	Dictatorships in Latin America
INST 525	Seminar on Modern Brazil
INST 601	Seminar in Development
INST 610B	Seminar in Latin America
INST 695	Thesis
POLS 534	Government & Politics in Latin America
POLS 535	Revolution in Latin America
POLS 536	The Politics of Brazil
POLS 579	Latin American Political Thought
POLS 590	Studies in Government: U.S. Policy in Latin America
SOC 508	Latin American Society
SOC 518	Third World Development
SPAN 539	Modern Spanish Usage
SPAN 543	Survey of Spanish American Colonial Literature
SPAN 544	Survey of Spanish American 20th Century Literature
SPAN 547	Themes from Spanish American Prose
SPAN 548	Contemporary Spanish American Literature
SPAN 560	Spanish American Civilization and Culture
SPAN 601	Seminar on Spanish American Literature
TCOM 765	Communication and National Development

#### **Southeast Asian Studies**

http://www.ohio.edu/seas/

Established in 1967, the Southeast Asian Studies Center at Ohio University has been recognized as one of the leading programs of its kind in the U.S. The rich cultures, traditions and opportunities of Southeast Asia are the focus of an interdisciplinary program that offers a master's degree and supports doctoral studies in disciplines that include an emphasis on Southeast Asia. Courses in professional fields such as development studies, communication, education, international business and management enrich the options. Dual degrees are available in some areas, including the MBA.

The graduate program benefits from a dedicated faculty having expertise in anthropology, communications, economics, geography, history, linguistics, management, political science, sociology, music, and world religions. The Southeast Asian Collection offers extensive library holdings and houses the Overseas Chinese Documentation and Research Center. The library has special strengths in the insular nations of Southeast Asia.

Students entering the program often seek careers in Foreign Service, government, non-governmental organizations, business, and international development agencies, as well as scholarly careers in teaching and research.

#### **Degree Requirements**

The Southeast Asian Studies Program has a flexible curriculum which allows students to enroll in courses offered by various schools and departments across the University. The curriculum is divided into concentrations such as anthropology, business, geography, history, international studies, literature, philosophy, political science, and telecommunications.

The Master's Program consists of a minimum of seventy credit hours in at least three disciplines. Forty-five credit hours come from core Southeast Asian courses, the remainder from such disciplines as education, journalism, plant biology, and TOEFL.

An important element of the Southeast Asian Studies program is proficiency in one or more Southeast Asian languages. Two years of coursework or its equivalent in a vernacular language is required. Presently, Ohio University offers classroom instruction in Khmer, Indonesian, Thai, and Vietnamese. A number of additional language courses are available through Ohio University's participation in the Southeast Asian Studies Summer Institute (SEASSI), a nine-week intensive summer language program.

The course work may be completed in as little as fifteen months. The course of study concludes with a comprehensive written examination given during the last term of the student's program. Thesis and project options are available in lieu of the comprehensive examination.

#### Courses

ANTH 585	Cultures of SEA
ANTH 586	Problems in SEA Anthropology
CLWR 511	Islam in SEA
CLWR 521	Hinduism in SEA
CLWR 531	Seminar on Buddhism in SEA
ECON 573	Economics of SEA
GEOG 529	World Economic Geography
GEOG 538	Geography of SEA
GEOG 539	Geographic Patterns in Developing Countries
HI <b>S</b> T 544A	History of the Malay World
HIST 544B	History of Burma and Thailand
HIST 544C	History of Vietnam
HIST 545A	History of SEA to 1750: The Creative Synthesis
HIST 545B	SEA 1750-1942: Change and Conflict
HIST 545C	SEA 1942-present
HIST 645	Colloquium in History of SEA
ILL 540	Traditional Literature of SEA
INDO 540	Traditional Literature of SEA
INDO 545	Modern Literature of SEA
INST 550	Focus on Malaysia
INST 590	Tun Razak Seminar
INST 610C	Overseas Chinese in SEA
MGT 584	International Management
MGT 586	Business World of Asia
MGT 691	Seminar in SEA Business
PBIO 569E	Tropical Plant Biology
PBIO 569F	Agricultural Plant Ecology
POL5 547A/8	Government and Politics of SEA
0015540	
POL5 648	Seminar on Politics in SEA

Additional courses are available in anthropology, business and management, education, gender studies, geography, interpersonal communication, journalism, music, sociology, telecommunications, and world religions.

## International Studies Courses (INST)

500 Introduction to Graduate Studies (2) Interdisciplinary introduction to graduate study including research methodologies and nature of area studies. F, Sp, Y. A

501 Introduction to Southeast Asian Studies (2) This course introduces the student to graduate level research methodologies in regard to interdisciplinary studies in Southeast Asian studies. E

525 Seminar in Modern Brazil (5) Examines the social, cultural, political, and economic development of 20th century Brazil and exposes the student to a broad spectrum of relevant research resources.

550 Focus on Malaysia (5) Introduction to geographical, historical, demographic, cultural, and political settings of Malaysia within the wider context of Southeast Asia. A survey of the historical development of Malaysia with emphasis on the period from the Second World War. The Constitution of the Federation of Malaya 1957 and subsequently the Constitution of Malaysia 1963 are discussed. The course will focus on the National Education Policy, the National Language Policy, the formation of Malaysia, and the New Economics Policy. Razak Chair holder; W; Y.

### 590 Tun Razak Seminar Southeast Asia Studies (5)

Designed to enable the holder of the Tun Abdul Razak Chair to present his/her particular specialization. This means the content of the course could be different from year to year, depending on the discipline of the holder. The focus of the course will be on Malaysia as well as other parts of Southeast Asia. Razak Chair holder; Sp; Y.

595 Internship (1-15)
Students may register for a prescribed number of hours when participating in an internship experience. F; W; Sp; Su.

601 Seminar in Development (5) Interdisciplinary investigation into selected problems of development. Intended to provide interdisciplinary perspective into nature of sociological, political, economic, and psychological change in Africa, Asia, and Latin America. Su; D.

610A-Z Seminar in International Studies (3–5) These seminars are designed to enable graduate students to pursue an in-depth examination of selected topics. The seminars will feature visiting faculty as well as regular faculty to provide extensive and timely examination of current topics. W. Sp.

625 Seminar for the African Child (5)
The course uses methodologies from the social sciences to examine important issues in children's health, education, information dissemination, and medical interventions across the African continent. The children and youth of Africa are the world's most marginalized population group in terms of poverty and access to social resources. The seminar will address this situation from a variety of methodological and disciplinary angles—maternal literacy and children's health, for example. Su.

690 Independent Study (1–5) Prereq: perm. F, W, Sp, Su.

694 Practicum in Community Outreach (2) Course is designed to be integrated into the MAIA curriculum, offering opportunities for directed work in the area of international studies community outreach. Students will engage in the planning, design, and presentation of outreach campaigns to a diverse audience in southeast Ohio. F; W; Sp; Su.

695 Thesis (1–10) Prereq: perm. F, W, Sp, Su.

## Individual Interdisciplinary Programs

Office of Graduate Studies
McKee House

Michael Mumper
Associate Provost for Graduate Studies

Prospective graduate students with demonstrated ability and intellectual maturity may apply for admission into the Individual Interdisciplinary Program (IIP) at either the master's or doctoral level. Entry into the program requires unconditional admission to graduate study. You should have achieved at least a 3.3 undergraduate g.p.a. to pursue a master's degree in IIP, and/or a 3.6 graduate g.p.a. to pursue the Ph.D. degree in IIP. You may also have to provide official test scores such as GRE, GMAT, or MAT. The IIP requires that you, with the assistance of your advisory committee, develop a program of study that includes a minimum of three emphasis areas, each in a different department or school. At least two of the departments or schools must offer graduate degrees at the degree level sought.

At the master's level, the minimum requirements include 15 hours of course credit in each area of emphasis, plus a final project (thesis, performance, etc.) acceptable to your advisory committee. The credit hours required for the final project will be determined by the committee. You will be required to meet the minimum requirements of the assigned college for the master's degree.

At the Ph.D. level, no fixed minimum of course credit is imposed beyond that associated with the residency requirement (three consecutive quarters in a full-time equivalent status); however, a practical minimum is 135 credit hours beyond the bachelor's degree or 90 beyond the master's degree. You are required to meet the minimum requirements of the assigned college for the doctoral degree.

The IIP is administered through the Office of Graduate Studies; address inquiries to the director of the Individual Interdisciplinary Program at that office. Upon receipt of the inquiry, the office will send the appropriate application forms to you. In addition to the standard application forms, three letters of recommendation, test scores required by the departments or schools participating in the program of study, two official transcripts from each postsecondary school attended, and the application fee, you must submit (1) a statement (not to exceed two pages) describing your goal and rationale for pursuing an IIP degree, including the reasons why the degree goal is not available through an

existing advanced degree program at Ohio University (this procedure requires that you be familiar with the possibilities described in this catalog); and (2) a tentative plan of study.

After all application documents are received, the director of the Individual Interdisciplinary Program determines whether (1) your qualifications are minimally acceptable, (2) the University's capabilities and your goals are compatible, and (3) the proposed program is unavailable in an existing format in an existing academic unit.

If these requirements are satisfied, the credentials are forwarded to those chairing the graduate committee of each department or school involved for evaluation and recommendations from qualified faculty. If the recommendations from the departments, schools, and academic college are positive, you are admitted to the program and an advisory committee is appointed. The committee is responsible for preparing the program requirements, periodically reviewing your progress, administering comprehensive examinations, and directing the final project or dissertation. You are required to follow the degree guidelines and meet the minimum requirements of the assigned college for the degree level sought.

Application materials for fall quarter must be received by March 1. Application materials for other quarters must be received three months before the beginning of the quarter of entry requested.

## **Lifelong Learning**

Haning Hall

Thomas Shostak

The Division of Lifelong Learning offers a variety of innovative and alternative educational opportunities and experiences for both traditional and nontraditional students, including graduate programs. With its mission of outreach and access, it extends the services of Ohio University to learners of all ages throughout the world. The Division is the home for Ohio University Without Boundaries, Community and Professional Programs, Independent and Distance Learning Programs, the Ohio University Program in Hong Kong, and Summer Sessions.

Ohio University Without Boundaries jointly develops and offers graduate programs in cooperation with the academic colleges. Recent collaboration has been with the College of Arts and Sciences, the College of Business, the College of Education, and the College of Health and Human Services. Programs combine online and residential experiences and are designed specifically for professional working people and other adult learners.

Information on other Lifelong Learning programs can be found in the *Undergraduate Catalog*.

## Ohio University Without Boundaries

http://www.ouwb.ohiou.edu/

**Ohio University Without Boundaries** designs, develops, and delivers learning experiences that integrate life, work, and learning on a continual basis, regardless of physical location, for professional working people and other adult learners. Offerings include graduate-level degree programs for targeted professionals, executive or professional education and certificate programs for individuals or partner organizations, and online learning communities that provide enrichment opportunities featuring prominent faculty and alumni. Undergraduate course credit is also available through some programs.

Many programs are built upon a learning architecture that combines the convenience of online collaboration and content acquisition with the proven benefits of face-to-face interaction through a small number of high-intensity residencies. Interactive learning modules and enrichment opportunities are presented in a multimedia format, including video, animation, and sound as well as text.

Graduate programs are offered in conjunction with the academic colleges including the College of Arts and Sciences, the College of Business, the College of Education, and the College of Health and Human Services. Additional program descriptions may be found under each college's section of this catalog.

For complete program details, including application information and links to individual program Web sites, visit the Ohio University Without Boundaries' Web site. You may also contact Ohio University Without Boundaries, 42 West Union Street, Athens OH, 45701-2979, telephone 1-877-686-2292 (toll-free), fax (740) 597-1456, e-mail ouwb@ohio.edu.

#### **Graduate Programs**

The Executive Master of Public Administration program, offered with the Department of Political Science, enables professionals in government, nonprofit, and service organizations to complete an executive degree in just two years by collaborating online and attending weekend class meetings once a month on the Ohio University Athens campus. The core curriculum focuses on organization and human resource management, methodologies of data management, policy and fiscal analysis, and strategic management.

The M.B.A. Without Boundaries (MBAWB) allows high-potential working individuals to continue working while earning their MBA degree and integrate their work experience into the learning process. A collaborative effort with the College of Business, the MBAWB program combines the power of problem-based learning with the convenience of online collaboration and the personal touch of intensive residential experiences. The program is organized into 11 learning units and requires a two-year commitment.

The College of Education offers three programs through Ohio University Without Boundaries. The Executive Ph.D. Curriculum in Higher Education is geared toward the full-time working administrator or teacher with courses scheduled at convenient times and locations. Completion of the curriculum takes students to the dissertation stage of their programs. The Master's in Higher Education program is targeted to individuals working within a higher education setting who wish to advance their knowledge and skills. Courses are delivered mainly by compressed video format to regional locations over a twoyear period. The Master of Leadership in **Educational Administration program** provides graduate-level professional education for school business officials and treasurers employed in PK-12 school systems as well as business officials at universities and technical and vocational schools. Seven sequential projects are completed in a two-year period with each project requiring two face-to-face meetings with faculty and fellow students, contribution to online discussion, and a final deliverable.

The master's program in Athletic Administration is jointly offered with the School of Recreation and Sport Sciences in partnership with the National Interscholastic Athletic Administrators Association (NIAAA). The program is designed exclusively for interscholastic athletic administrators and leads to a Master of Science in Recreation and Sport Sciences with a concentration in athletic administration. The 27-month program is a blended format, requiring only three residencies with online collaboration and interactive learning between the residencies.

# College of Osteopathic Medicine

Grosvenor Hall, Irvine Hall, Parks Hall, and Centers of Osteopathic Research and Education sites throughout the state

John A. Brose, D.O. *Dean*  The University offers a program leading to the Doctor of Osteopathic Medicine (D.O.) degree through its College of Osteopathic Medicine. Doctors of Osteopathic Medicine practice in all branches of medicine and surgery, but most choose to practice family-oriented primary care. The college was established by the Ohio General Assembly in 1975 with the mission of training osteopathic family physicians for underserved areas of Ohio.

The College of Osteopathic Medicine has an enrollment of about 400 students in its four-year program. All applicants must take the Medical College Admission Test. Successful applicants demonstrate a high undergraduate grade-point average and have completed coursework in biology, organic and general chemistry, physics, English, and the behavioral sciences.

Medical students at Ohio University study in one of two tracks—the Clinical Presentation Continuum (CPC) curriculum or the Patient-Centered Continuum (PCC) curriculum. Both curricula view medical education as an organized building process that extends from the first day of medical school through residency training and beyond. The CPC curriculum provides students with opportunities to learn the basic science fundamentals of medicine in an integrated, clinically relevant environment. This faculty-directed curriculum uses the most common and/or important symptoms that patients present to primary care providers as its organizing focus. The PCC curriculum is a student-directed approach that uses a case-based learning environment and places emphasis on small group discussions, case analysis, collaborative learning, and problem solving as its primary educational tools. Accepted students may apply for enrollment in the PCC curriculum if they feel this learning track best suits their individual learning style.

For further information, write for a copy of the College of Osteopathic Medicine Catalog and other admissions material. Address inquiries to Admissions, Ohio University College of Osteopathic Medicine, Grosvenor Hall 102, Athens OH 45701-2979, or call 1.800.345.1560 (for medical school inquiries only).

## Departmental Faculty

The following listings were submitted by the dean's office in each college in May 2003 and verified in the provost's office. The regional campus faculties are listed after the Athens campus faculty.

#### College of Arts and Sciences African American Studies

Vibert C. Cambridge, Ph.D., Chair, Ohio U.

**Prof:** Francine C. Childs, Ed.D., East Texas State U.

Asst. Prof: Andrea Davis, Ph.D., York U.; Eric Grant, Ph.D., Yale University.

Inst: D. Akil Houston, M.F.A., Ohio U.

#### **Biological Sciences**

Prof: Ralph DiCaprio, Ph.D., U. of Alberta; Anne Loucks, Ph.D., U. of California, Santa Barbara; Ellengene Peterson, Ph.D., U. of California, Riverside; Robert Rakowski (chair), Ph.D., U. of Rochester School of Medicine and Dentistry; Jerome Rovner (emeritus, part-time), Ph.D., U. of Maryland; Michael Rowe, Ph.D., U. of California, Riverside; Gerald Svendsen, Ph.D., U. of Kansas; John Zook, Ph.D., Duke U.

Assoc. Prof: Mary Chamberlin, Ph.D., U. of British Columbia; Robert Colvin, Ph.D., Rutgers U.; Elizabeth Crockett (part-time), Ph.D., U. of Maine; William Holmes, Ph.D., U. of California, Los Angeles; Donald Holzschu, Ph.D., U. of California, Davis; Scott Hooper, Ph.D., Brandeis U.; Patricia Humphrey (part-time), Ph.D., Purdue U.; Kelly Johnson, Ph.D., Michigan State U.; Donald Miles, Ph.D., U. of Pennsylvania; Scott Moody, Ph.D., U. of Michigan; Molly Morris, Ph.D., Indiana U.; Stephen Reilly, Ph.D., Southern Illinois U.; Willem Roosenburg, Ph.D., U. of Pennsylvania; Matthew White, Ph.D., Virginia Tech.

Asst. Prof: Janet S. Duerr, Ph.D., Princeton University; R. Patrick Hassett (part-time), Ph.D., U. of Washington; David Kurjiaka, Ph.D., Penn State U.; Daewoo Lee, Ph.D., U. of California, Riverside; Soichi Tanda, D.Sc., Hokkaido U.

Inst: Helaine Burstein, Ph.D., North Carolina State U.; Robert Carr, Ph.D., U. of Michigan; Joan Cunningham, Ph.D., Ohio U.; Laura DiCaprio, Ph.D., U. of Alberta; Steven Edinger, M.A., Northern Michigan U.; Karen Mammone, M.S., Frostburg State U.; Molly Gurien, M.S., Rutgers U.; Harry Schutte, D.O., Ohio U.; Christopher Schwirian, M.S., Ohio U.; M. Suzanne Simon Westendorf, Ph.D., Ohio U.

Lect: Mary Nossek, M.S., Ohio U.

#### **Chemistry and Biochemistry**

Prof: Kenneth L. Brown (chair), Ph.D., U. of Pennsylvania; Howard D. Dewald, Ph.D., New Mexico State U.; David Hendricker, (emeritus, part-time) Ph.D., Iowa State U.; Tadeusz Malinski, Ph.D., U. of Poznan; Hugh H. Richardson, Ph.D., Oklahoma State U.; Gary Small, Ph.D., U. of North Carolina; Paul Sullivan (emeritus, part-time), Ph.D., U. of Waterloo. Assoc. Prof: Stephen C. Bergmeier, Ph.D., U. of Michigan; Jared Butcher, Jr., Ph.D., U. of Tennessee; Karen E. Eichstadt, Ph.D., U. of Kansas; Peter de Boves Harrington, Ph.D., U. of North Carolina; Marcia Kieliszewski, Ph.D., Michigan State U.; Frederick Lemke, Ph.D., Purdue U.; Bruce McCord, Ph.D. U. of Wisconsin; Mark C. McMills, Ph.D., Michigan State U.; Gary Pfeiffer, Ph.D., Carnegie Mellon U.; Martin T. Tuck, Ph.D., U. of Tennessee; Gene Westenbarger (emeritus, part-time), Ph.D., U. of California, Berkeley; Shiyong Wu, Ph.D., U. of Nebraska.

Asst. Prof: Elisar Barbar, Ph.D, Portland State U.; Susan C. Evans, Ph.D., U. of Texas Graduate School of Biomedical Sciences; Klaus Himmeldirk, Ph.D., U. of Paderborn; Jennifer V. Hines, Ph.D., U. of Michigan; Lauren E. McMills, Ph.D., Michigan State U.; Jeffrey J. Rack, Ph.D., Colorado State U.; P. Greg Van Patten, Ph.D., U. of South Carolina; David Young, Ph.D., U. of Edinburgh.

#### **Classics and World Religions**

**Prof:** Charles J. Ping Professor of Humanities: Thomas H. Carpenter, D. Phil., *Oxford U.*; Gene Blocker (emeritus, part-time), Ph.D., *U. of California, Berkeley*.

Assoc. Prof: James A. Andrews, Ph.D., U. of California, Berkeley; Robert Stephen (Steve) Hays, Ph.D., U. of Texas, Austin; William M. Owens (chair), Ph.D., Yale U.; Ruth Palmer, Ph.D., U. of Cincinnati; Elizabeth Collins, Ph.D., U. of California, Berkeley; George Weckman, Ph.D., U. of Chicago.

Asst. Prof: Peter J. Anderson (visiting), Ph.D., U. of Cincinnati; Lisa Carson, Ph.D., U. of North Carolina at Chapel Hill; Lynne C. Lancaster, D. Phil., Oxford U.; Jaclyn L. Maxwell, Ph.D., Princeton University.

#### Economics

Dist. Prof: Richard Vedder, Ph.D., U. of Illinois.

Prof: Douglas Adie, Ph.D., U. of Chicago; Roy Boyd, Ph.D. (chair), Duke U.; Tony Caporale, Ph.D., George Mason U.; Khosrow Doroodian, Ph.D., U. of Oregon; Ismail Ghazalah, Ph.D., U. of California, Berkeley; Chulho Jung, Ph.D., U. of Michigan; David Klingaman, Ph.D., U. of Virginia; Rajindar K. Koshal (emeritus, part-time), Ph.D., U. of Rochester; Rosemary Rossiter, Ph.D., U. of Wisconsin, Milwaukee.

**Assoc. Prof:** Barbara Caporale, Ph.D., George Mason U.; Jan Palmer, Ph.D., Michigan State U.; Harold Winter, Ph.D., U. of Rochester.

Asst. Prof: Ariaster Chimeli, Ph.D., U. of Illinois; Kyongwook Choi, Ph.D., U. of Washington; Shamila Jayasuriya, Ph.D., Georgetown U.; Charlene Kalenkoski, The George Washington U.; Donald Lacombe, Ph.D., Florida State U.; Julie Paxton, Ph.D., Ohio State U.; William Shambora, Ph.D., U. of Kentucky.

#### English

**Dist. Prof:** Robert DeMott, Ph.D., Kent State U.; John Matthews, M.A., Ohio State U.

Hamilton Baker Hostetler Professor of Humanities: Dean McWilliams, Ph.D., *U. of Oregon*.

**Trustee Prof:** Samuel Crowl (part-time), Ph.D., *Indiana U.* 

Prof: Linda Hunt Beckman (part-time), Ph.D., U. of California, Berkeley; Susan Crowl (part-time), Ph.D., Indiana U.; James Davis (emeritus, partime), Ph.D., Florida State U.; Jacqueline N. Glasgow, Ph.D., Kent State U.; Sherrie Gradin, Ph.D., U. of New Hampshire; Mark Halliday, Ph.D., Brandeis U.; Earl Knies (emeritus, part-time), Ph.D., U. of Illinois; Barry Roth, Ph.D., Stanford U.; Duane Schneider (emeritus, part-time), Ph.D., U. of Colorado; Darrell Spencer, Ph.D., U. of Utah; Linda Zionkowski, Ph.D., Northwestern U.

Assoc. Prof: Marilyn Atlas, Ph.D., Michigan State U.; David Bergdahl, Ph.D., Syracuse U.; Josephine Bloomfield, Ph.D., U. of California, Davis; Joan Connor, M.F.A., Vermont College; Kenneth Daley, Ph.D., New York U.; Marsha Dutton; Ph.D., U. of Michigan; Loreen Giese, Ph.D., Emory U.; George Hartley, Ph.D., U. of New Mexico: David Heaton (emeritus, part-time). Ph.D., U. of Michigan; Janis Holm, Ph.D., U. of Michigan; Mara Holt, Ph.D., U. of Texas; Reid Huntley (emeritus, part-time), Ph.D., U. of North Carolina; David Lazar, Ph.D., U. of Houston; Joseph McLaughlin, Ph.D., Duke U.; Zanemvula Kizito Gatyeni Mda, Ph.D., U. of Capetown; Robert Miklitsch, Ph.D., SUNY, Buffalo; Jennie Nelson, Ph.D., Carnegie Mellon U.; Betty Pytlik, Ph.D., U. of Southern California; Mark Rollins, Ph.D., U. of Massachusetts; Albert Rouzie, Ph.D., U. of Texas; Thomas Scanlan. Ph.D., Duke U.: Arthur Woolley (emeritus, part-time), Ph.D., U. of Wisconsin:

Asst. Prof: Crystal Anderson, Ph.D., College of William and Mary, Michael Brown (part-time), Ph.D., Ohio U.; Ph.D., Andrew Escobedo, Ph.D., U. of California, Berkeley; Christine Freeman (part-time), Ph.D., Kent State U.; Miriam Hart (part-time), Ph.D., Ohio U.; Paul Christian Jones, Ph.D., U. of Tennessee at Knoxville; Katarzyna Marciniak, Ph.D., U. of Oregon; Evan Maina Mwangi, Ph.D., U. of Nairobi; Charles Naccarato (part-time), Ph.D., Ohio U.; Beth Quitslund, Ph.D., U. of California, Berkeley; Nicole Reynolds, Ph.D., U. of Georgia; Linda J. Rice, Ph.D., Kent State U.; Jill Rosser (part-time), Ph.D., U. of Pennsylvania; Carey Jean Snyder, Ph.D., State U. of New York; Lowell Ver Heul (part-time), Ph.D., Ohio U.; Jeremy Webster, Ph.D., U. of Tennessee; Johnnie A. Wilcox, Ph.D., U. of Virginia; Valorie Worthy (part-time), Ph.D., Ohio U.

Instr: David Bruce (part-time), M.A., Ohio U.; Jane Denbow (part-time), M.A., Marshall U.; Robert Kinsley (part-time), M.A., Ohio U.; Thomas Mantey (part-time), M.A., Ohio U.; David Sharpe (part-time), M.A., Brown U.

#### **Environmental and Plant Biology**

Prof: Philip Cantino (chair), Ph.D., Harvard U.; James Cavender, Ph.D., U. of Wisconsin; Brian McCarthy, Ph.D., Rutgers U.; John Mitchell, Ph.D., (emeritus, part-time), Edinburgh U.; Gar Rothwell, Ph.D., U. of Alberta; Allan M. Showalter, Ph.D., Rutgers U.; Ivan Smith, Ph.D., U. of London.

Assoc. Prof: Harvey Ballard, Jr., Ph.D., U. of Wisconsin; Arthur T. Trese, Ph.D., U. of Missouri; Morgan Vis-Chiasson, Ph.D., Memorial U. of Newfoundland

Asst. Prof: Kim Brown, Ph.D., *U. of Washington*; Glen Matlack, Ph.D., *U. of Wales*; Sarah E. Wyatt, Ph.D., *Purdue U.* 

#### Geography

**Prof:** Nancy R. Bain, Ph.D., *U. of Minnesota*; James K. Lein, Ph.D., *Kent State U.*; Frank E. Bernard (emeritus, part-time), Ph.D., *U. of Wisconsin*; Bob J. Walter (emeritus, part-time), Ph.D., *U. of Wisconsin*; Lynden S. Williams (emeritus, part-time), Ph.D., *U. of Kansas*.

Assoc. Prof: Timothy G. Anderson, Ph.D., Texas A & M U.; Hubertus H.L. Bloemer, Ph.D., The Union: Institute; Christopher G. Boone, Ph.D., U. of Toronto; James M. Dyer, Ph.D., U. of Georgia; Brad D. Jokisch, Ph.D., Clark U.; Dorothy Sack, Ph.D., U. of Utah.

Asst. Prof: Geoffrey L. Buckley, Ph.D., U. of Maryland; Ronald H. Isaac (chair), Ph.D., Southern Illinois U.; Stacy Jorgensen, Ph.D., U. of Georgia; Yeong-Hyun Kim, Ph.D., Syracuse U.

#### **Geological Sciences**

**Prof:** Royal Mapes, Ph.D., *U. of Iowa*; Damian Nance, Ph.D., *U. of Cambridge, England*; Thomas Worsley, Ph.D., *U. of Illinois* 

Assoc. Prof: Douglas Green (chair), Ph.D., U. of Wisconsin; Gene Heien (emeritus, part-time) M.A., Indiana U.; David Kidder, Ph.D., U. of California; Elizabeth Gierlowski-Kordesch, Ph.D., Case Western Reserve U.; Dina Lopez, Ph.D., Louisiana State U.; Mary Stoertz, Ph.D., U. of Wisconsin

Asst. Prof: Julie Libarkin, Ph.D., *U. of Arizo*na; Greg Nadon, Ph.D., *U. of Toro*nto; David Schneider, Ph.D., *Lehigh U.*; Gregory Scott Springer, Ph.D., Colorado State *U.* 

#### History

Ohio Eminent Research Scholar: Alfred Eckes, Ph.D., U. of Texas.

**Dist. Prof:** Charles Alexander (part-time), Ph.D., U. of Texas; Alonzo Hamby (part-time), Ph.D., U. of Missouri.

J. Richard Hamilton/Baker and Hostetler Professor: Alan R. Booth (part-time), Ph.D., Boston U.

**Prof:** Marvin Fletcher, Ph.D., *U. of Wisconsin*; Donald Jordan (part-time), Ph.D., *U. of Wisconsin*; Steven Miner (chair), Ph.D., *Indi*ana *U.*; Compton Reeves (part-time), Ph.D., *Emory U.*; Donald Richter (part-time), Ph.D., *U. of Maryland*; Bruce Steiner (part-time), Ph.D., *U. of Virginia*.

Assoc. Prof: Douglas Baxter, Ph.D., U. of Minnesota; Phillip Bebb, Ph.D., Ohio State U.; Phyllis Field, Ph.D., Cornell U.; William Frederick, Ph.D., U. of Hawaii; Norman J.W. Goda, Ph.D., U. of North Carolina; Michael Grow, Ph.D., George Washington U.; Richard Harvey (part-time), Ph.D., U. of Missouri; Katherine Jellison, Ph.D., U. of Iowa; Kevin Mattson, Ph.D., U. of Rochester; Chester Pach, Ph.D., Northwestern U.; Sholeh Quinn, Ph.D., U. of Chicago.

Asst. Prof: Benita Blessing, Ph.D., U. of Wisconsin; P. John Brobst, Ph.D., U. of Texas; T. David Curp, Ph.D., U. of Washington; Ann Fidler, Ph.D., U. of California, Berkeley; Patrick Griffin, Ph.D., Northwestern U.; Walter Hawthorne, Ph.D., Stanford U.; Robert G. Ingram, Ph.D., U. of Virginia, Jaclyn Maxwell, Ph.D., Princeton U.; Paul Milazzo, Ph.D., U. of Virginia; Dan Shao, Ph.d., U. of California; Kevin Uhalde, Ph.D., Princeton U.

#### Linguistics

**Prof:** Zinny Bond, Ph.D., *Ohio State U.*; Leslie Flemming (dean), Ph.D., *U. of Wisconsin*.

**Assoc. Prof:** James Coady Ph.D., (emeritus, parttime), *Indiana U.*; Beverly Flanigan, Ph.D., *Indiana U.*; Richard

McGinn (chair), Ph.D., *U. of Hawaii*; Hiroyuki Oshita, Ph.D., *U. of Southern California*; Marmo Soemarmo, Ph.D., *U. of California*, Los Angeles.

Asst. Prof: David Bell, Ph.D., Boston U.; John Mugane, Ph.D., U. of Arizona; Liang Tao, Ph.D., U. of Colorado; Christopher Thompson, Ph.D., U. of Illinois.

Instr: Ryota Deguchi, M.A., Ohio U.; Joung Hee Krzic, M.A., Ohio U.; Suharni Soemarmo, M.A., U. of California, Los Angeles.

#### Mathematics

Dist. Prof: Surender Jain, Ph.D., U. of Delhi.

Prof: Abdol-Reza Aftabizadeh, Ph.D., U. of Texas, Arlington; Sergiu Aizicovici (chair), Ph.D., U. of Iasi; Alexander V. Arhangelskii, Dr. Sc., VAC, USSR; Archil Gulisashvili, Dr.Sc., VAC. USSR; Winfried Just, Ph.D., U. of Warsaw; Sergio-López-Permouth, Ph.D., North Carolina State U.; Nicolae Pavel, Ph.D., U. of Iasi; Larry Snyder (emeritus, part-time), Ph.D., Purdue U.; Quoc Phong Vu, Dr. Sc., VAC, USSR; Thomas Wolf, Ph.D., U. of Wisconsin;

Assoc. Prof: Jeffery Connor, Ph.D., Kent State U.; Barbara Grover, Ph.D., U. of Pittsburgh; David Keck, Ph.D., Ohio State U.; Paul S. Malcom (emeritus, part-time), Ph.D., Ohio State U.; M.S.K. Sastry, Ph.D., U. of Rochester, James Shirey (part-time), Ph.D., Purdue U.; Vladimir Uspenskiy, Ph.D., Lomonosov Moscow U.; Robert Vancko (part-time), Ph.D., Penn State U.; Vladimir Vinogradov, Ph.D., Moscow State U.

Asst. Prof: Steven A. Chapin, Ph.D., Rutgers U.; Dinh Huynh, Dr. Sc., Martin Luther Universität; William E. Kaufman, Ph.D., U. of Houston; Vardges Melkonian, Ph.D., Cornell U.; Martin J. Mohlenkamp, Ph.D., Yale U.; Laura J. Moss, Ph.D., U. of Texas; Maria L. Rizzo, Ph.D., Bowling Green State U.; Xiaoping Shen, Ph.D., U. of Wisconsin-Milwaukee; Todd Young, Ph.D., Georgia Institute of Technology.

Inst: Monica Hilverding, MA, Ohio State U.

#### Modern Languages

James S. Reid Standard Products Co. Prof: Lois Vines, Ph.D., Georgetown U.

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Assoc. Prof: Noel Barstad(emeritus, part-time), Ph.D., U. of Minnesota; David Burton, Ph.D., U. of Kentucky; Jose Delgado, Ph.D., U. of Virginia; Karen Evans-Romaine, Ph.D., U. of Michigan; Yolande Helm, Ph.D., Penn State U.; Mary Jane Kelley, Ph.D., U. of Wisconsin; Emilia Marks, Ph.D., U. of Sevilla; Abelardo Moncayo-Andrade, Ph.D., U. of Maryland; Ruth Nybakken, Ph.D., Columbia U.; Betsy Partyka, Ph.D., Oxford U.; Herta Rodina, Ph.D., Harvard U.; Fred Toner (chair), Ph.D., U. of Kansas; Daniel Torres, Ph.D., U. of Cincinnati; Marie-Claire Wrage (emerita, part-time), Ph.D., U. of Wisconsin.

Asst. Prof: Maike Ahrends, Ph.D., U. of Michigan; Vera Belousova, Ph.D., Moscow U.; Carole Cloutier, Ph.D., Georgetown U.; R. Christopher Coski, Ph.D., U. of Maryland; Dominique Duvert, Ph.D., U. of North Carolina; Elise Signe Denbow, Ph.D., U. of Michigan; Nelson Hippolyte, Ph.D., U. of Pittsburgh; Arthur Hughes, Ph.D., U. of Arizona; Amado Lascar, Ph.D., U. of Oregon; Jeffrey Marks, M.A., U. of Sevilla; Joanna L. Mitchell, Ph.D., U. of Rochester; Molly Morrison, Ph.D., Indiana U.; Humberto Perez Pancorbo, Ph.D., U. of Notre Dame; Klaus Plonien, Ph.D., U. of Minnesotsa; Annette Steigerwald, Ph.D., McGill U.; Jörg Waltje, Ph.D., U. of Colorado;

Instr: Harold Blanco, M.A., Marshall U.; Kathleen Brown, B.A., U. of Chicago; Brigitte Moretti-Coski, M.A., U. of Maryland; Anne Porter, M.A., Middlebury College; Barbara Reichenbach, M.A., Kent State U.; Marda Rose, M.A., Middlebury College; Nikil Sathe, M.A., Bowling Green State U.; Kerry Vaughan, M.A., Ohio U.; Josefina Williams, M.A., Ohio U.; Keith Woodall, M. A., Texas Tech University; Karin Wright, M.A., Ohio U.

#### Ohio Program of Intensive English

Lect: John Bagnole, M.A., Georgetown U.; Dawn Bikowski, M.A., Ohio U.; Linn Forhan, M.A., Ohio U.; Cynthia Holliday, M.A., SUNY, Albany, Mary Kaye Jordan, M.A., Ohio U.; Greg Kessler, M.A., California State U., Sacramento; Gerald Krzic, Ph.D., Ohio U.; John McVicker, M.A., U. of Kansas; Charles Mickelson (director), M.A., Ohio U.; John Miller, M.A., School of International Training; Patrick Miller, M.A., Ohio U.

#### Philosophy

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Assoc. Prof: Scott Carson, Ph.D., *U. of North Carolina*; James Petrik, Ph.D., *Marquette U.*; Robert Trevas (emeritus, part-time), Ph.D., *U. of Maryland*; Arthur Zucker (chair), Ph.D., *U. of Minnesota*.

Asst. Prof: Alyssa Bernstein, Ph.D., Harvard U., Mark LeBar, Ph.D., U. of Arizona; Tadeusz Zawidzki, Ph.D., Washington U.

#### **Physics and Astronomy**

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Assoc. Prof: Charles Brient (emeritus, parttime), Ph.D., *U. of Texas*; Alexander Govorov, Ph.D., Semiconductor Physics Inst., Novosibirsk; David Ingram, Ph.D., Salford U.; Peter Jung, Ph.D., *U. of Ulm*; Brian McNamara, Ph.D., *U. of Virginia*; Allena K. Opper, Ph.D., Indiana U.; Joseph Shields, Ph.D., *U. of California, Berkeley*; Arthur Smith, Ph.D., *U. of Texas*; Thomas S. Statler, Ph.D., *Princeton U.*; Larry Wilen, Ph.D., *Princeton U.* 

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Assoc. Prof: Yining Chen, Ph.D., U. of South Carolina; James S. Cox (emeritus, part-time), Ph.D., U. of Pittsburgh;, David L. Senteney, Ph.D., U. of Illinois; Toby Stock, Ph.D., Indiana U.; Robert H.S. Sarikas, Ph.D., U. of Illinois at Urbana-Champaign.

**Asst. Prof:** Constance Esmond Kiger, Ph.D., *Indiana U.*; E. Ann Gabriel, Ph.D., *Ohio State U.* 

Inst: Susanne C. Freeland, MT, Capital University.

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Executive-in-Residence: Neil Holden, D.B.A., Indiana U.; David Payne, M.B.A., Indiana U.; John E. Reynolds, III, M.B.A., Wharton School, U. of Pennsylvania.

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Asst. Prof: Rajesh P. Narayanan, Ph.D., Florida State U.; John J. Puthenpurackal, Ph.D., Texas A&M U., Andrew K. Prevost, Ph.D., Wayne State U.; Erik Devos, Ph.D., State Univ. of NY

Inst: Scott B. Wright, M.B.A., Ohio U.

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**Asst. Prof:** Kevin Elder, Ph.D., *U. of Arizona*; Ellsworth Holden (emeritus, part-time), M.A., *Harvard U.*; Sean McGann, M.B.A., *Ohio U.* 

Inst: Tod Brokaw, M.B.A.; Ohio U.; Jeff Risner, M.S.; Ohio U.; Jeffery Anderson, M.B.A.; Ohio U.

Lect: Corrine Brown (part-time), Ph.D., Ohio U.

#### **Management Systems**

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**Lecturer and Executive-in-Residence:** Richard C. Scamehorn (emeritus, part-time), M.B.A., *Indiana II.* 

Prof: Manjulika Koshal, Ph.D., Patna U.; Arthur Marinelli, J.D., Ohio State U.; John Stinson (emeritus, part-time), Ph.D., Ohio State U.; Lane Tracy (emeritus, part-time), Ph.D., U. of Washington, Aaron Kelley, Ph.D., Univ. of N. Texas

Assoc. Prof: Frank Barone, Ph.D., Ohio State U.; Garth Coombs, Ph.D., U. of Colorado; Kenneth Cutright, Ph.D., West Virginia U.; Patricia Gunn, J.D., Boston College; Mary Keifer, J.D., U. of Virginia; Clarence Martin, Ph.D., Carnegie Mellon U.; Richard Milter, Ph.D., SUNY, Albany; Bonnie Roach, Ph.D., Ohio State U.; Jessie Roberson, J.D., U. of Michigan; Hugh Sherman, (Chair), Ph.D., Temple U.; Rebecca A. Thacker, Ph.D., Texas A&M U.; Mary Tucker, Ph.D., U. of New Orleans; Edward B.Yost, Ph.D., Ohio State U.; Faizal Huq, Ph.D., U. of Kentucky; Deborah Core, Ph.D., Univ of Colorado at Boulder

Asst. Prof: Robert Holbrook, Jr., Ph.D., U. of Illinois, William Lamb, Ph.D, Virginia Polytechnic Institute and State U.; Kevin Kennedy Ph.D, Texas Tech U.; Amy Taylor, Ph.D., Columbia U. Patrick Kreiser, Ph.D., U. of Alabama

**Lect:** Pamela A. Boger (part-time), Ph.D., *Ohio U.;* John Keifer, J.D., *U. of Virginia;* Christine A. Yost (part-time), Ph.D., *Ohio U.;* Carrie Brokaw, M.B.A.. *Ohio U.* 

Inst: Laura Myers, J.D., Ohio State U.

#### Marketing

**O'Bleness Chair of Marketing:** Ashok Gupta, Ph.D., *Syracuse U.* 

**Prof:** Kahandas Nandola, (emeritus, part-time) Ph.D., *U. of Pennsylvania*.

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**Asst. Prof**: Christopher Moberg, Ph.D., *Cleveland State U.* 

Instr: Larry S. Rogers, M.B.A., Ohio U.

#### College of Communication Communication Systems Management

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Assoc. Prof: Philip Campbell, M.S., SUNY, Stony Brook; Hans Kruse, Ph.D., Vanderbilt U.; Trevor Roycroft, Ph.D., U. of California, Davis; Andrew Snow, (Director) Ph.D., U. of Pittsburgh.

**Asst. Prof:** Anthony G. Mele, B.S., *Ohio U.*; John Hoag, Ph.D., *Ohio State University*, Herbert Thompson, Ph.D., *University of Georgia* 

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Assoc. Prof: Christina Beck, Ph.D., U. of Oklahoma; Ted Foster (emeritus, part-time), Ph.D., Ohio U.; Anita James, Ph.D., U. of Southern California; Jerry L. Miller, Ph.D., U. of Oklahoma; Daniel P. Modaff, Ph.D., U. of Texas; Nagesh Rao, Ph.D., Michigan State U.; John Smith, Ph.D., Wayne State U.

Asst. Prof: Michael Arrington, Ph.D., U. of South Florida; Benjamin R. Bates, Ph.D., U. of Nebraska; R. Sam Larson, Ph.D., Michigan State University; Caryn E. Medved, Ph.D., U. of Kansas; Jeff St. John, Ph.D., U. of Washington; Ted Striphas, Masters, U. of North Carolina; Scott Titsworth, Ph.D., U. of Nebraska.

#### **Journalism**

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**Scripps Howard Visiting Professional:** John Brady, M.A., *Bradley Univ.* 

Prof: Joe Bernt, Ph.D., U. of Nebraska; Anne Cooper-Chen, Ph.D., U. of North Carolina; Dru Riley Evarts, Ph.D., Ohio U.; Marilyn Greenwald, Ph.D., Ohio State U.; Melvin Helitzer, B.A., Syracuse U.; Ralph Izard (emeritus, part-time), Ph.D., U. of Illinois; Michael R. Real (Director), Ph.D., U. of Illinois, Urbana; Daniel Riffe, Ph.D., U. of Tennessee; Robert Stewart, Ph.D., U. of Washington; Patrick Washburn, Ph.D., Indiana U.; Patricia Westfall, M.S., Columbia U.

Assoc. Prof: Eddith Dashiell, Ph.D., Indiana U.; Bernard Debatin, M.A., Technical U., Berlin; Sandra Haggerty, B.S., Utah State U.; Thomas Hodges, M.S., South Dakota State U.; Thomas Peters, (emeritus, part-time) M.B.A., Ohio U.; Ron Pittman, M.S., Marshall U.; Cassandra Reese, Ph.D., Ohio U.; Jan Slater, Ph.D., Syracuse U.

Asst. Prof: Bojinka Bishop, M.S., U. of Michigan; Ovril Patricia Cambridge, Ph.D., Ohio U.; Douglass K. Daniel, Ph.D., Ohio U.; Diana Knott, Ph.D., Univ. of North Carolina; Mark Leff, Masters, Ohio State U.; Bill Reader, M.A., Media Studies, Penn State U.; Mary Rogus, M.B.A., U. of Kentucky.

Instr: Kathy Pittman (part-time), M.Ed., Ohio U.

**Asst. Instr:** Douglas E. Nohl (part-time), B.S.C., Ohio U.

#### **Telecommunications**

**Prof:** Don Flournoy, Ph.D., *U. of Texas*; Kathy A. Krendi (Dean), Ph.D., *U. of Michigan*; Drew McDaniel, Ph.D., *Ohio U.*; David Mould, Ph.D., *Ohio U.*; Josep Rota, Ph.D., *Michigan State U.*; Joseph Slade Ph.D., *New York U.* 

Assoc. Prof: Duncan Brown, Ph.D., U. of Illinois; Vibert Cambridge, Ph.D., Ohio U.; Charles Clift III (emeritus, part-time), Ph.D., Indiana U.; Arthur C. Cromwell, Ph.D., Ohio U.; Roger Good, M.A., Ohio U.; Willard W. Hoyt, J.D., Ohio State U.; George Korn, Ph.D., Southern Illinois U.; Jenny Nelson, Ph.D., Southern Illinois U.; Norma Pecora, Ph.D., U. of Illinois; Jeff Redefer, M.A., Ohio U.; Karen Riggs, (Director) Ph.D., Indiana U.; Karin Sandell, Ph.D., U. of Iowa.

Asst. Prof: Mia Consalvo, Ph.D., U. of lowa; Cheryl Harris, Ph.D., U. of Massachusetts-Amherst, Joseph Richie, M.M.A., U. of South Carolina; Frederick Lewis, MFA, Brown U.; Greg Newton, Ph.D., Indiana University

#### **Visual Communication**

**Prof:** Terrill Eiler, M.F.A.(Interim Director), *Ohio U.*; Larry Nighswander, B.B.A., *Bowling Green State U.*; Marcia Nighswander, B.S.J., *Bowling Green State U.* 

Assoc. Prof: Gary Kirksey, M.A., Ohio U.; William R. Schneider, M.F.A., Ohio U.; Michael Williams, M.S., U. of Kansas, tenure May 2003.

**Asst. Prof:** Stanley Alost, B.S.J., *Louisiana State U.,* M.A., *Ohio U.*; Samuel Girton, M.F.A., *Ohio U.*; Larry Hamel-Lambert, M.A., *Ohio U.* 

Instructor: Terence Oliver, B.S., Ferris State

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Assoc. Prof: Catherine Glascock, Ph.D., Louislana State U.; Jaylynne Hutchinson, Ph.D., U. of Washington; Najee Muhammad, Ph.D., U. of Cincinnati; Michael Papa, Ph.D., Temple U.; Adah Ward Randolph, Ph.D., Ohio State U.; Rosalie Romano, Ph.D., U. of Washington, Arlie Woodrum, Ed.D., Harvard U.

Asst. Prof: Gordon Brooks, Ph.D., Ohio U.; Teresa Franklin, Ph.D., Ohio U.

#### Education—Teacher Education

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Assoc. Prof: Bonnie Beach, Ph.D., Ohio U.; JoAnn Dugan, Ph.D., U. of Pittsburgh; Dianne Gut, Ph.D., U. of North Carolina; Sondra Rebottini, Ed.D. (emeritus, part-time), West Virginia U.; Barbara Reeves, Ed.D., U. of Kentucky; Marta Roth, Ed.D., West Virginia U.; Colleen Sexton, Ph.D., Ohio U.; William Smith, Ed.D., Indiana U.; James Yanok, Ph.D., Kent State U.

Asst. Prof: Susan Avery-Mitchell, Ed.D., U. of Alabama; Frans Doppen, Ph.D., U. of Florida; Eun-Young Jung, Ph.D., U. of Illinois; Jennifer Malmberg, Ph.D., Ohio University; Mary Markowitz, Ph.D., U. of Kansas; Gayle Millsaps, M.A., Ohio State U.

Instr: Perrianne Bates, M.Ed., Ohio U.; Marcy Keifer, M.Ed., Ohio U.; Karen Oswald, M.Ed., Ohio U. Joette Weber, M.Ed. Ohio U.

### Russ College of Engineering and Technology Aviation

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Asst. Prof: Ronald J. Faliszek, B.B.A., Ohio University; Deak M. Arch, M.A., Delta State University; Mark A. Sherman, E.D.S., Central Missouri State University.

#### **Chemical Engineering**

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Assoc. Prof: Wen-Jia Russell Chen, Ph.D., Syracuse U.; Douglas Goetz, Ph.D., Cornell U.; Tingyue Gu, Ph.D., Purdue U.; Daniel Gulino, Ph.D., U. of Illinois; Darin Ridgway, Ph.D., Florida State U.; Kendree Sampson, Ph.D. Purdue U.; Valerie Young, Ph.D., Virginia Polytechnic Institute and State U.

**Asst. Prof:** Gerardine Botte, Ph.D., *University of South Carolina*.

#### Civil Engineering

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Assoc. Prof: Lloyd A. Herman, Ph.D., Vanderbilt U.; Teruhisa Masada, Ph.D., Ohio U.; Eric P. Steinberg (Thomas Prof.), Ph.D., Michigan Tech. U.; Ben J. Stuart, Ph.D., Rutgers U.

Asst. Prof: Lindsey Sebastian Bryson, Ph.D., Northwestern U.; Sang-Soo Kim, Ph.D., Iowa State U.; R. Guy Riefler, Ph.D., Univ. of Connecticut; James M. Thompson, Ph.D., Lehigh U.

## Electrical Engineering and Computer Science

Prof: Michael Braasch, Ph.D., Ohio U.; Hollis Chen (emeritus, part-time), Ph.D., Syracuse U.; Jeffrey Dill, Ph.D., U. of Southern California; Joseph Essman (emeritus, part-time), Ph.D., Purdue U.; Herman Hill, Ph.D., West Virginia U.; R. Dennis Irwin (Dean & Moss Prof of Engr. Ed.), Ph.D., Mississippi State U.; Robert Judd (Cooper Industries Prof.), Ph.D., Oakland U.; Henryk Lozykowski, Ph.D., N. Copernicus U.; Brian Manhire, Ph.D., Ohio State U.; Jerrel Mitchell (Senior Associate Dean for Res. & Grad. Studies), Ph.D., Mississippi State U.; Roger Radcliff, Ph.D., West Virginia U.; William Shepherd (part-time), D.Sc., U. of London; Janusz Starzyk, Ph.D., Technical U., Warsaw; Frank van Graas (Russ Prof.), Ph.D., Ohio U.; Lonnie Welch (Stuckey Prof.), Ph.D., Ohio State U.; J. Jim Zhu, Ph.D., U. of Alabama.

Assoc. Prof: Liming Cai, Ph.D., Texas A&M U.; Mehmet Celenk, Ph.D., Stevens Institute of Technology; David Chelberg, Ph.D., Stanford U.; Robert Curtis, Ph.D., New York U.; Jeffrey Giesey, Ph.D., U. of Michigan; John Gillam (part-time), Ph.D., Michigan State U.; David Juedes, Ph.D., Jowa State U.; Douglas Lawrence, Ph.D., Johns Hopkins U.; Shawn Ostermann, Ph.D., Purdue U.; Constantinos Vassiliadis, Ph.D., Mississippi State U.

Asst. Prof: Chris Bartone, Ph.D., Ohio U.; Carl Bruggeman, Ph.D., Indiana U.; Frank Drews, Ph.D., Technical University of Clausthal, Germany; Wojciech Jadwisienczak, Ph.D., Visiting Assistant Professor, (part-time) Nicolas Copernicum University, Torun, Poland; Savas Kaya, Ph.D., U. of London, Imperial College; Chang Liu, Ph.D., University of Calif., Irvine, CA; Jundong Liu, Ph.D., University of Florida, Gainesville, FL; Cynthia Marling, Ph.D., Case Western Reserve U.; David Matolak, Ph.D., U. of Virginia; Maarten Uijt de Haag, Ph.D., Ohio U.; Wenle Zhang, Ph.D., Ohio U.

Lect: Margaret Thomas (part-time), M.A., Ohio U.

Instr: Andrea Demott (part-time), M.A., Ohio U.; John Dolan (part-time), M.S., Ohio U.; Mal Gunasekera, M.S., Ohio U.; Victor Hanna (part-time), M.S., Youngstown State U.; Ralph Kelsey (part-time), Ph.D., Ohio U.; Curtis Sherman, M.S., Cleveland State University.

#### Industrial and Manufacturing Systems Engineering

Prof: Charles M. Parks (chair), Ph.D., Oklahoma State U.; Helmut Zwahlen (emeritus, part-time, Russ Prof.), Ph.D., Ohio State U.; Gursel A. Suer, Ph.D., Wichita State University.

**Assoc. Prof:** David A. Koonce, Ph.D., *Louisiana State U.;* Dusan Sormaz, Ph.D., *U. of Southern California*.

Asst. Prof: Trevor S. Hale, Ph.D., Texas A&M U.; Dale T. Masel, Ph.D., Penn State U.

#### Industrial Technology

**Prof:** James F. Fales (Loehr Prof. and chair), Ed.D., *Texas A&M*; William W. Reeves (emeritus, part-time), Ed.D., *U. of Kentucky*; Timothy J. Sexton, Ph.D., *Ohio U*.

Assoc. Prof: John A. Deno, Ph.D., Ohio State U.; Peter W. Klein, Ph.D., Ohio U.; Patrick J. McCuistion, Ph.D., Texas A&M; Thomas E. Scott (Kraft Family Scholar), Ph.D., Ohio U.

Asst. Prof: Todd D. Myers, MBA, Ohio U.; Mark R. Rowe, M.S., Ohio U.

#### Mechanical Engineering

Prof: Khairul Alam (Moss Prof.), Ph.D., California Institute of Technology; Gary Graham, Ph.D., Texas Tech U.; Jay Gunasekera (Moss Prof. and chair), Ph.D., U. of London; Hajrudin Pasic, Ph.D., Stanford U.; T. Richard Robe (dean emeritus, part-time), Ph.D., Stanford U.

Assoc. Prof: David Bayless, Ph.D., U. of Illinois; Andrew Foley, Ph.D., Cranfield University; Kenneth Halliday, Ph.D., U. of Massachusetts; Jae Y. Lew, Ph.D., Georgia Institute of Technology; Bhavin Mehta, Ph.D., Ohio U.; Israel Urieli, Ph.D., U. of Witwatersrand; Robert L. Williams II, Ph.D., Virginia Polytechnic Institute and State U.

**Asst. Prof**: Gregory G. Kremer, Ph.D., *U. of Cincinnati*; Frank F. Kraft, Ph.D., *Rensselaer Polytechnic Institute*.

## College of Fine Arts Art

Prof: Don Adleta, M.F.A., School of Design, Switzerland; Joseph Bova (part-time), M.A., U. of New Mexico; Carolyn Cardenas, M.F.A., Drake U.; Abner Jonas (emeritus, part-time), M.F.A., U. of Iowa; Ronald Kroutel (emeritus, part-time), M.F.A., U. of Michigan; Mary Manusos, M.F.A., U. of Wisconsin; Charles McWeeny, M.F.A., Ohlahoma U.; Karen Nulf (emerita, part-time), M.A., Michigan State U.; Judith Perani (part-time), Ph.D., Indiana U.; Gary Pettigrew (emeritus, part-time), M.F.A., Ohio U.; Brad Schwieger, M.F.A., Utah State U.; Arthur Werger, M.F.A., U. of Wisconsin; Daniel Williams (emeritus, part-time), M.A., U. of Oregon.

Assoc. Prof: Marilyn Bradshaw, Ph.D., Indiana U.; Aethelred Eldridge, M.S.D., U. of Michigan; Michael Harper (part-time), Ph.D., U. of North Carolina; Christine Heindl, M.F.A., Cornell U.; Joseph Lamb, Ph.D., U. of California, Santa Barbara; Robert Lazuka (director), M.F.A., Arizona State U.; Duane McDiarmid, M.F.A., Florida State U.; Thomas Patin, Ph.D., U. of Washington; Robert Peppers, M.F.A., Ohio U.; Marilyn Poeppelmeyer, M.F.A., SUNY, Buffalo; Yoshitomo Saito, M.F.A., California College of Arts & Crafts.

Asst. Prof: Barbara Bays, Ph.D., Indiana U.; Anne Burkhart, Ph.D., Ohio State U.; Alison Colman, M.A., Ohio State U.; Jimmy Fike, Jr., M.F.A., Cranbrook Academy of Art; Karla Hackenmiller, M.F.A., U. of South Dakota; Kuiyi Shen, M.A., Ohio State U.

#### Dance

**Prof:** Michele Geller, M.F.A., New York U. School of the Arts; Madeleine Scott (director), M.A., U. of California, Los Angeles; Marina Walchi, M.F.A., Ohio U.

Assoc. Prof: Andre Gribou, M.M., Juilliard School of Music; Lisa F. Moulton, M.F.A., U. of

Asst. Prof: Zelma Badu-Younge, M.F.A., York U.; Travis Gatling, M.F.A., Ohio State U.; Maura Keefe, Ph.D., University of California, Riverside; Kim Neal Nofsinger, M.F.A., Arizona State U.

#### Film

Eminent Scholar in Film: Rajko Grlic, M.F.A., Famu Prague.

**Prof:** David O. Thomas, Ph.D., Southern Illinois U.

**Assoc. Prof:** Charles Fox (director), M.A., *The Johns Hopkins U.* 

**Asst. Prof:** Jennifer Granville, M.A., Leeds Met. U.; Steven Ross, B.A., Wesleyan U.

#### **Interdisciplinary Arts**

**Prof:** William F. Condee (director), Ph.D., Columbia U.; Jessica Haigney (emerita, parttime), Ph.D., Ohio U.; Dora J. Wilson, Ph.D., U. of Southern California.

Asst. Prof: Charles Buchanan, Ph.D., *U. of California at Santa Barbara*; Virginia Gorlinski, Ph.D., *U. of Wisconsin-Madison*; Keith Harris, Ph.D., *New York U.*; Vladimir Marchenkov, Ph.D., *The Ohio State U.* 

#### Music

Prof: Ernest Bastin (emeritus, part-time), M.M., U. of Illinois; Gail Berenson, M.M., Northwestern U.; John Climer, D.M.A, U. of Missouri, Kansas City; Donna Conaty, M.M., Yale School of Music; Peter Jarjisian, D.M.A., U. of Wisconsin; Meryl Mantione (director), D.M.A., U. of Colorado; Mark Phillips, D.M., Indiana U.; Allyn Reilly, Ph.D., Northwestern U.; Guy Remonko (emeritus, part-time), M.M., West Virginia U.; Harold Robison (emeritus, part-time), D.M.A., U. of Michigan; James Scholten (emeritus, part-time), Ed.D., U. of Michigan; Richard Syracuse, M.S., Juilliard School of Music; Raymond Tymas-Jones (dean), Ph.D., Washington U. at St. Louis; Richard Wetzel, Ph.D., U. of Pittsburgh.

Assoc. Prof: Paul Barte, D.M.A., U. Of Rochester; Roger Braun, M.M. Eastman School of Music; Dorothy Bryant, Ph.D., U. of Oklahoma; Milton Butler, Ph.D., U. Of Arizona; Sylvia Reynolds Henry, Ph.D., U. of Kansas; Matthew James, M.M., U. of North Texas; Michael Kellogg (part-time), M.M., Loyola U.; Patricia Pease, D.M.A., Florida State U.; Rebecca Rischin, D.M. Florida State U.; John Schlabach, M.M., Northwestern U.; C. Scott Smith, M.M., Michigan State U.; Anita Louise Steele, M.M.E., U. of Kansas; James Stewart (emeritus, part-time), Ph.D., Ohio State U.; Margene Stewart (emerita, part-time), M.F.A., Ohio U.; Richard Suk, M.M.E., U. of Southern Mississippi, Sylvester Young, Ph.D., U. of Missouri.

Asst. Prof: Marjorie Bagley, M.M., Manhattan School of Music; Michael Carrera, D.M.A., Manhattan School of Music; Alejandro Cremaschi, D.M.A., U. of Minnesota; Raymond Feener, M.M., Ohio U.; Andrew George, M.M., U. of Wisconsin-Madison; Christopher Hayes, Ph.D., U. of Missouri-Columbia; William Mouat, D.M.A., U. of Washington; Kamile O'Donnell, M.A., Texas Woman's U.; Alison Sincoff, M.M., U. of Nebraska; Jason Smith, M.M., U. of Cincinnati College Conservatory of Music; Eric Stomberg, M.M., U. of Cincinnati College Conservatory of Music

#### Theater

**Prof:** Ursula Belden, M.F.A., Yale U.; Paul Castagno, Ph.D., Ohio State U.; Dennis Dalen (emeritus, part-time), M.A., U. of Kansas; Charles Smith, M.F.A., U. of lowa.; Robert L. Winters (part-time), M.A., Michigan State U.

Assoc. Prof: Holly Cole, M.F.A., Carnegie Mellon U.; Daniel N. Denhart, M.F.A., Ohio U.; William Fisher, B.A., Indiana U.; Lonny S. Fraze (parttime), M.A., Penn State U.; Esaiba Irobi, Ph.D., U. of Leeds; Laura Parrotti, M.A., SUNY, Binghamton; Robert St. Lawrence (interim director), M.A., U. of Pittsburgh.

Asst. Prof: Jorge L. Cacheiro, M.F.A., Yale U.; Shelley Delaney, M.F.A., Rutgers U.; Kjersten Lester-Moratzka, M.F.A., North Carolina School of the Arts; Gregory Lush, M.F.A., U. of Mississippi.

#### College of Health and Human Services

#### **Health Sciences**

**Prof:** Matthew Adeyanju, Ph.D., *University of Illinois*; Gari Lesnoff-Caravaglia, Ph.D., *U. of California, Los Angeles*.

Assoc. Prof: Douglas Bolon, Ph.D., Virginia Polytechnic Institute and State U.; Kevin Crist, Ph.D., U. of Iowa; Richard Hedges, Ph.D., U. of Kentucky; Michele Morrone, Ph.D., Ohio State U.

Asst. Prof: Stephen Hohman, Ph.D., Penn State U.; Ann Rathbun, Ph.D., Texas Woman's University; Donald Reed, Ph.D., Georgia State U.; Timothy Ryan, M.S., Ph.D., U. of Texas; Patricia Baasel Tillis (emerita, part-time), Ph.D., Ohio U.;

Instr: Juli Miller (part-time) M.H.S.A., Ohio U.

#### Hearing, Speech, and Language Sciences

**Prof:** Donald Fucci, Ph.D., (emeritus, part-time) *Purdue U.*; Norman Garber (director), Ph.D., *U.* of *Missouri*; James W. Montgomery, Ph.D., *Wichita State U.*; Gary Neiman (dean), Ph.D., *U.* of *Illinois* 

**Assoc. Prof:** Brooke Hallowell, Ph.D., *U. of lowa*, Ronald Isele (emeritus, part-time), M.A., *Kent State U.* 

Asst. Prof: Emily Buckberry (emerita, part-time), M.A., Ohio U.; C. Richard Dean, Ph.D., (emeritus, part-time) Stanford U.; Jeffrey J. DiGiovanni, Ph.D., U. of Minnesota; Chao-Yang Lee, Ph.D., Brown U.; Sally A. Marinellie, Ph.D., U. of Illinois; Ayaskanta Rout, M.S., All India Institute of Speech & Hearing, Mysore, India.; Li Xu, M.D., Capital University of Medical Sciences, Beijing, China, Ph.D., U. of Florida College of Medicine; Erika Zettner, Ph.D., U. of Washington.

Instr: Donna Bidlack, M.A., Bowling Green State U.; Kristi Kinnard, M.A., Ohio U.; Rebecca Meier, M.A., Ohio U.; Marianne Schueller, Ph.D., Ohio U.; Davida Parsons, M.A. Ohio U.; Janice M. Wright, M.A., Cleveland State U.

#### **Human and Consumer Sciences**

Prof: Margaret King, Ed.D., U. of Massachusetts.

Assoc. Prof: Eugene Geist, Ph.D., U. of Alabama, Birmingham; Annette S. Graham, Ph.D., Penn State U.; David Holben, Ph.D., Ohio State U.; Judy Matthews (emerita, part-time), Ph.D., Ohio State U.; Sharran Parkinson, Ph.D., Ohio U.; V. Ann Paulins (director), Ph.D., Ohio State U.

Asst. Prof: Angela C. Baum, Ph.D., lowa State U.; Darlene Berryman, Ph.D., Cornell U.; Jennifer Chabot, Ph.D., Michigan State U.; Jae-Eun Chung, Ph.D., Michigan State U.; Lee Cibrowski, Ph.D., Ohio State U.; Schuyler Cone, Ph.D., Ohio State U.; Schuyler Cone, Ph.D., Ohio State U.; Melani W. Duffrin, Ph.D., Ohio U.; Gregory R. Janson, Ph.D., Ohio U.; Diana Manchester (part-time), M.S., Ohio State U.; J. David Matthews, M.Arch., Miami U.; Margaret Manoogian Ph.D., Oregon State U.; Cheryl W. Van Hook, Ph.D., U. of Tennessee; Yingjiao Xu, Ph.D., Louisiana State U.; Matthew Ziff, M. Arch., Virginia Polytechnic Institute and State U.

**Instr:** Francie Astrom (part-time), M.S., *Northern Illinois U.* 

#### Nursing

**Prof:** Sharon Denham, DSN., *U. of Alabama, Birmingham*; Kathleen Rose-Grippa, Ph.D., Stanford U.

Asst. Prof: Emily Harman (interim director), M.S.N., West Virginia U.; Sharon Mullen, Ph.D., Ohio U.; Carla Phillips, Ph.D., Ohio State U.; Therese Snively (part-time), Ph.D., Ohio State U.; Kathleen Tennant, Ph.D., Ohio U.

#### **Physical Therapy**

Prof: Gary S. Chleboun, Ph.D., Ohio U.

**Assoc. Prof:** Averell Overby (director), Dr. P.H., U. of Texas.

Asst. Prof: Dennis Cade, Ph.D., Ohio U.; Rosalind S. Hickenbottom, Ph.D., Emory U.; Christopher Petrosino, M.Ed., Ohio U.; Betty Sindelar, Ph.D., U. of Washington; James Thomas, Ph.D., U. of Illinois, Chicago.

Instr: Janice Howman, B.S., Bowling Green State U.

#### **Recreation and Sport Sciences**

**Prof:** Roger Gilders, Ph.D., *Ohio U.*; Sue Ellen Miller, P.E.D., *Indiana U.* 

Assoc. Prof: David Carr, Ed.D., Virginia Tech U.; Tiff E. Cook, Ph.D. (part-time), Walden U.; Richard Deivert, Ph.D., Penn State U.; Charles R. Higgins (emeritus, part-time), Ed.D., U. of North Carolina; Andrew Kreutzer, Ph.D., Ohio U.; Ming Li, Ed.D., U. of Kansas; Robin Mittelstaedt, Ph.D., U. of Oregon, Beth VanDerveer, Ph.D., Texas Woman's U.

Asst. Prof: Matthew Brown, Ed.D., U. of Northern Colorado; Susan Bullard, Ph.D., U. of Wisconsin; Ronald Dingle (emeritus, part-time), M.S., U. of Massachusetts; Jennifer Hinton, Ph.D., Clemson U.; David Jacoby (emeritus, part-time), Ph.D., Ohio U.; Joyce King (emerita, part-time), Ph.D., Ohio State U.; Michael Kushnick, M.S., U. of Louisville; Nancy Nisbett, Ed.D., U. of California, Davis; Sharon Rana, Ph.D., U. of Northern Colorado; Jeffrey Seegmiller, M.S., Illinois State U.; Ronald Whitaker (emeritus, part-time), M.Ed., Ohio U.; Richard Woolison (emeritus, part-time), M.Ed., Ohio U.; David M. Zuefle, Ph.D., Texas A & M U.

Instr: Carol Ault (part-time), M.S.P.E., Ohio U.; Trina Bookman (part-time), M.S.P.E., Ohio U.; Thomas Murray (part-time), M.S.P.E., Ohio U.; Sharon Noel (part-time), M.S.P.E., Ohio U.

#### College of Osteopathic Medicine Biomedical Sciences

**Goll Ohio Eminent Research Scholar:** John Kopchick, Ph.D., *U. of Texas*, Houston.

**Distinguished Prof:** Robert S. Hikida, Ph.D., *U. of Illinois*.

**Distinguished Senior Scientist:** Leonard Kohn, M.D., Columbia College of Physicians and Surgeons, New York.

Prof: Jack Blazyk, Ph.D., Brown U.; Joseph T. Eastman, Ph.D., U. of Minnesota; Lee Engstrom (emeritus visiting professor, part-time), Ph.D., U. of Illinois; Fredrick Hagerman (part-time), Ph.D., Ohio State U.; Peter Johnson, Ph.D., U. of Birmingham; Joseph Jollick, Ph.D., West Virginia U.; William S. Romoser (part-time), Ph.D., Ohio State U.

Assoc. Prof: Huzoor Akbar, Ph.D., Australian National U.; Charles Atkins (emeritus, part-time), Ph.D., North Carolina State U.; Bonita Biegalke, Ph.D., U. of Washington; Audrone Biknevicius, Ph.D., Johns Hopkins U.; Xiao-Zhuo Chen, Ph.D., Ohio U.; Peter Coschigano, Ph.D., Massachusetts Institute of Technology; Kenneth Goodrum, Ph.D., U. of Texas; Marjorie Hagerman (parttime), Ph.D., Ohio U.; Frank Horodyski, Ph.D., U.

of California, San Diego, John Howell, Ph.D., U. of California, Los Angeles; Calvin B.L. James, Ph.D., Howard U.; Richard Klabunde, Ph.D., U. of Arizona; Felicia Nowak, M.D., Ph.D., Washington U. School of Medicine; Ronald Portanova, Ph.D., Case Western Reserve U.; Linda Ross, Ph.D., U. of Texas; Edwin C. Rowland, Ph.D., Waske Forest U.; Robert S. Staron, Ph.D., Ohio U.; Leon C. Wince, Ph.D., Wask Virginia U.; Lawrence Witmer, Ph.D., Johns Hookins U.

Asst. Prof: Mark Berryman, Ph.D., U. of Virginia; Mario Grijalva, Ph.D., Ohio U.; Sharon Inman, Ph.D., U. of Louisville; Yang Li, Ph.D., Southern Illinois U.; Patrick O'Connor, Ph.D., SUNY, Stony Brook; Nancy Stevens, Ph.D., SUNY, Stony Brook.

Instr: Mary K. Eastman, M.S., Ohio U.

#### **Department of Family Medicine**

Prof: John A. Brose (dean), D.O., U. of North Texas/Texas College of Osteopathic Medicine; Anthony G. Chila, D.O., U. of Health Sciences, College of Osteopathic Medicine, Kansas City; Judith W. Rhue, Ph.D., Ohio U.

Assoc. Prof: David E. Brown, D.O., U. of Health Sciences, College of Osteopathic Medicine, Kansas City; William J. Burke (Doctors Hospital, Columbus,), D.O., Ohio U. College of Osteopathic Medicine; Peter B. Dane, D.O., Michigan State U., College of Osteopathic Medicine; William F. Duerfeldt, D.O., Kirksville College of Osteopathic Medicine; David C. Eland, D.O., Kirksville College of Osteopathic Medicine; Donald R. Furci (Doctors Hospital, Columbus), D.O., Kirksville College of Osteopathic Medicine; Karl E. Harnish, D.O., Chicago College of Osteopathic Medicine; Donna M. Mabry (part-time), Ph.D., Ohio U.; Daniel J. Marazon, D.O., Kirksville College of Osteopathic Medicine; Lenard G. Presutti, D.O., U. of Osteopathic Medicine and Health Sciences, Des Moines; Gerald Rubin, D.O., Philadelphia College of Osteopathic Medicine; Christopher Simpson, D.O., Kirksville College of Osteopathic Medicine; Robert G. Stockmal (part-time), D.O., Ph.D., Philadelphia College of Osteopathic Medicine, Jefferson Medical College.

Asst. Prof: Janet Burns, D.O., Ohio U. College of Osteopathic Medicine; Andrea S. Clem, D.O. Chicago College of Osteopathic Medicine: Carol M. Gaines, D.O., West Virginia School of Osteopathic Medicine; Robert S. Gotfried, D.O., Philadelphia College of Osteopathic Medicine; Eduardo Robles, D.O., Ohio U. College of Osteopathic Medicine; Edward W. Schreck, D.O., Chicago College of Osteopathic Medicine; Jay H. Shubrook, Jr., D.O., Ohio U. College of Osteopathic Medicine; Martha A. Simpson, D.O., Kirksville College of Osteopathic Medicine; David N. Stroh, D.O., Ohio U. College of Osteopathic Medicine; Harold C. Thompson, III, D.O., Chicago College of Osteopathic Medicine; Linda B. Tomc (part-time), D.O., Ohio U. College of Osteopathic Medicine; Geraldine Urse ( Doctor's Hospital, Columbus), D.O., Ohio U. College of Osteopathic Medicine; Nicole Wadsworth, D.O., Ohio U. College of Osteopathic Medicine.

## Department of Geriatric Medicine/Gerontology

Assoc. Prof: Allison J. Batchelor (part-time), M.D., Medical College of Ohio at Toledo; Wayne R. Carlsen (chair), D.O., U. of Medicine and Dentistry of New Jersey, School of Osteopathic Medicine; Steven W. Clay, D.O., Kirksville College of Osteopathic Medicine; Jen-Tzer Gau, M.D., China Medical College; Tracy L. Marx, D.O., Ohio U. College of Osteopathic Medicine.

#### Department of Obstetrics/Gynecology

**Assoc. Prof:** Michael J. Clark, D.O., Kansas City College of Osteopathic Medicine; Jack M. Ramey (chair), D.O., U. of Health Sciences College of Osteopathic Medicine, Kansas City.

#### **Department of Pediatrics**

**Prof**: J. Phillip Jones, D.O., U. of Health Sciences College of Osteopathic Medicine, Kansas City.

Assoc. Prof: C. Thomas Clark (chair), D.O., U. of Osteopathic Medicine and Health Sciences, Des Moines; Karen Montgomery-Reagan, D.O., West Virginia School of Osteopathic Medicine.

#### **Department of Social Medicine**

**Prof:** Norman Gevitz (chair), Ph.D., *U. of Chicago*; Suzanne E. Hatty, Ph.D., *U. of Sydney*.

Assoc. Prof: Marjorie E. Nelson (emerita, parttime), M.D., MPH, Indiana U. School of Medicine, Yale U.; Robert M. Woodworth, D.O., MPH, Chicago College of Osteopathic Medicine, U. of Oklahoma Health Sciences Center.

Asst. Prof: Gillian H. Ice, Ph.D., MPH, Ohio State U., U. of Minnesota; Douglas D. Mann, Ph.D., Ohio U.; Jacqueline H. Wolf, Ph.D., U. of Illinois, Chicago.

#### **Department of Specialty Medicine**

**Prof:** Paul E. Cadamagnani, D.O., Chicago College of Osteopathic Medicine.

Assoc. Prof: Jeffrey S. Benseler (part-time), D.O., Kirksville College of Osteopathic Medicine; James D. Bovè, III, D.O., Philadelphia College of Osteopathic Medicine; Steven G. Carin (chair), D.O., Philadelphia College of Osteopathic Medicine; Gary Cordingley (part-time), M.D., Duke U. Medical Center; James E. Foglesong, D.O., Kirksville College of Osteopathic Medicine; Edward A. Gotfried, D.O., Philadelphia College of Osteopathic Medicine; James E. Sammons, Jr., D.O., Ohio U. College of Osteopathic Medicine; James E. Sammons, Jr., D.O., Ohio U. College of Osteopathic Medicine; Michael W. Tomc, D.O., Ohio U. College of Osteopathic Medicine.

Asst. Prof: Janice R. Carrick (part-time), D.O., College of Osteopathic Medicine of the Pacific; Jeffrey F. McAdoo (part-time), M.D., Ohio State U. College of Medicine; Mark F. McGee (part-time), M.D., Ohio State U. College of Medicine; John W. Murrey (part-time), D.O., Kirksville College of Osteopathic Medicine; Neal James Nesbitt (part-time), M.D., UCLA; Kendall Stewart (part-time), M.D., Medical College of Georgia; Nili Urieli (part-time), D.O., Ohio U. College of Osteopathic Medicine; Farid Zehtab, D.O., Western University-COMP.

#### University College Aerospace Studies

**Prof:** Bryan Neuhaus, M.A.S. Engineer Management, *Affit Institute of Technology* 

**Asst. Prof:** William Hart, M.A., *University of Buffalo* 

**Asst. Prof:** David Dernier, M.S., *Troy State University* 

#### Military Science

**Prof:** Douglas R. Orr, M.S., Joint Military Intelligence College.

**Asst.Prof:** Geraldine Shutt, B.A. Business Management, Wilmington College

**Asst.Prof:** Anthony A. Eaglowski, Jr., B.S. Industrial Management, *University of Akron* 

Asst.Prof: Steven F. Winans, B.S., Education, Youngtown State University

## Regional Higher Education Chillicothe Campus

Prof: Richard F. Bebee (dean, accounting), Ph.D., U. of Colorado, Dennis Deane (art/photography), M.F.A., U. of North Carolina; Veena Kasbekar (English), Ph.D., U. of Cincinnati; Margaret McAdams (art), M.F.A., Washington U.; John F. Reiger (history), Ph.D., Northwestern U.; Ronald Salomone (emeritus, part-time), (English), Ph.D., Indiana U.; William M. Whitaker (finance), Ph.D., U. of Kentuckv.

Assoc, Prof: Bobby Christian (part-time) (physical education), M.Ed., Ohio U.; Ronald S. Elliott (computer science), Ph.D., Ohio U.; David H. Gigley (part-time) (office technology), M.Ed., U. of Cincinnati; David O. Harding (part-time) (law enforcement), M.S., Eastern Kentucky U.; Mary Lynd (nursing), Ph.D., Texas Women's College, Glenn R. Mackin (emeritus, part-time) (political science), M.A., Ohio U.; Gene Mapes (plant biology, part-time), Ph.D., Ohio U.; J. Stephen Phillips (business management technology), Ed.D., U. of Cincinnati, Jan Schmittauer (English), Ph.D., Ohio State U.; Hamid Shahrestani (economics), Ph.D., U. of Cincinnati; Christi Simmons (business management technology), Ph.D., U. of Cincinnati; Arun C. Venkatachar (physics), Ph.D., Northern Texas State U.; Richard A. Whinery (human services technology), Ph.D., U. of Akron; Ruth Zajdel (office technology), M.Ed., U. of

Asst. Prof: Ashley Bannon (sociology), Ph.D., Ohio State U.; Ken Breidenbaugh (comparative arts), Ph.D., Ohio U.; Thomas P. Brown (business management technology), M.B.A., Ohio U.; Janet Duvali (deaf studies), M.S., Ohio U.; Gary Elkin (part-time) (law enforcement technology), M.S., Eastern Kentucky U.; Lakhdar Hammoudi (mathematics), Ph.D., U. of Haute-Alsace, Rob Hartsell (law enforcement technology), M.A., Ohio State U.; Lisa Kauffman (nursing), M.S.N. Wright State U.; Richard Kowieski (interpersonal communication), Ph.D., Ohio U.; Michael Lafreniere (hazardous materials/environmental engineering technology), M.S., U. of Florida; Cindy Matyi (psychology), Ph.D., Ohio U.; J. Dale Maxey (anthropology), Ph.D., Ohio State U., Charlotte McManus (nursing), M.S.N., Wright State U.; Vicky Parker (nursing), M.S.N., Wright State U.; Ruth Pontius (zoology), Ph.D., Ohio State U.; Richard Sandy (mathematics), M.S., Michigan State U.; Barbara Trube (early childhood education), Ed.D., U. of Texas at Austin; Lisa Wallace (interpersonal communication), Ph.D., Ohio U.; Joyce Zurmehly (nursing), M.S.N., Bellarmine College

Instr: Sally Andersen (geology), M.S., U. of California at Davis; Shannon Brogan (communication); M.A., West Virginia U.; Gary Haynes (geography), M.A., Ohio U.; Ruth McClain (English), M.Ed. U. of Rio Grande; Joseph Reass (law enforcement technology), B.A., Capital U.; Charlotte Souers (nursing), M.S.N., Bellarmine Callege; Roger Smith (chemistry), M.S., Ohio State U.; Deborah Zurmehly (early childhood education), M.S., Ohio U.

## Eastern Campus (St. Clairsville)

**Prof:** James Kettler (part-time)(physics), Ph.D., West Virginia U.

Assoc. Prof: Lawrence Bush (part-time), (mathematics), M.S., Ohio U.; Thomas P. Flynn (English), Ph.D., Ohio U.; William J. Lambert, Jr. (health administration), D.P.A., Nova South Eastern U., James W. Newton (dean, geography and urban planning), Ph.D., U. of North Carolina; Michael Nojeim, (political science), Ph.D., American U.; Kuruvilla Zachariah (chemistry), Ph.D., Oklahoma State U.; Sarah Mahan-Hays (interpersonal communication) Ph.D., Ohio U.; John Prather (mathematics) Ph.D., U. of Kentucky.

Asst. Prof: Susan Beisel (education), Ph.D. University of Tennessee; James Casebolt (psychology), Ph.D., U. of North Carolina; David Castle (history), Ph.D., U. of Oregon; Warren Galbreath (social work), Ohio State University, Joseph Hudak (health and sport sciences), Ph.D., U. of Toledo; Kay Mansuetto (emeritus, parttime), (botany), M.S., U. of South Carolina; Paula McMurray-Schwarz (education), Ph.D., Ohio State U.; Michael McTeague (emeritus, parttime), (comparative arts), M.A., Northeast Missouri State College; David Noble (English), D.A., Carnegie Mellon U.; Janice Proctor, (sociology), Ph.D., University of Kansas; Christopher Stevens (economics), Ph.D., Washington State University, Kathleen Van Voorst (computer science), M.S., Northwest Missouri State; Mark Waters (biology), Ph.D., U. of Tennessee.

Instr: Thomas Doepken, (part-time), (art), M.E.A., Ohio U.; Dennis Fox (part-time), (theater), M.A., Ohio State U.; Michael Kaiser (part-time), (guidance and counseling), Ph.D., Ohio U.; Eileen McCormack (part-time), (communication), M.A., U. of Pittsburgh; Lucien Murzyn (part-time), (health and sport sciences), M.Ed., U. of New Orleans; Daniel Stern (part-time), (sociology), M.A., U. of Pittsburgh; Patrick Wood (part-time), (English), M.A., West Virginia U.; Andrew Butler (part-time))cercise physiology), M.S., West Virginia U.; Sherri Theaker (parttime)(education), M.S., Youngstown State U.

#### **Lancaster Campus**

**Prof:** Kenneth Heineman (history) Ph.D., *U. of Pittsburgh*.

Assoc. Prof: Larry Ault (economics) (emeritus, part-time), M.A., Ohio U.; Andrea Baker (sociology), Ph.D., Case Western Reserve U.; Gary Baldwin (mathematics) (emeritus, part-time), M.S., U. of Illinois; Qiuping Cao (child development), Ph.D., SUNY, Buffalo; David Collopy (computer science technology) M.S., Ohio U.; Jan Cox (emeritus, part-time), (mathematics), M.A., Western Michigan U.; Shun Endo (art), M.F.A., Temple U.; Karen Evans (interpersonal communication), Ph.D., Southern Illinois U.; John Faulkner (English), Ph.D., Rutgers U.; Edward Fitzgibbon (history), Ph.D., Ohio State U.; Fred Herr (emeritus, part-time), (accounting), M.S., Kent State U.; Brian Hoyt (business management technology), M.B.A., Bryant School of Business; Helen Killoran, (English), Ph.D., U. of Washington; Martha Kline (chemistry), Ph.D., U. of North Carolina; Dennis Lupher (emeritus, part-time), (economics), Ph.D., Ohio U.; Kaye Martin, (early childhood education), Ph.D., Ohio State U.; Susan Maxwell (medical assisting technology), M.A., U. of Kentucky; Zale Maxwell (industrial technology), M.Ed., Ohio U.; Scott Minar (English), Ph.D., Ohio U.; Dee Mowry (biological sciences), (emeritus, part-time), M.S., Ohio U.; Steve Nerney (physics), Ph.D., U. of Colorado; Stephen Noltie (mathematics), Ph.D., U. of California, Riverside;

William Stevens (electronics technology), Ph.D., Ohio U.; Candice Thomas-Maddox (interpersonal communication) Ph.D., West Virginia U.; Bari Watkins (dean, history), Ph.D., Yale U.; Paul Yuckman (English), Ph.D., Ohio U.

Asst. Prof: Janet Becker (accounting technology), M.B.A., U. of Pittsburgh; Kathy Buxie (mathematics), Ph.D., U. of Kansas; Patrick Drumm (psychology), Ph.D., Ohio State U.; Denise Gates (interpersonal communications), M.A., Western Michigan U.; Franco Guerriero (mathematics), Ph.D., McMaster U.; Jane Johnsen (education), Ph.D., Ohio State U.; Gary Lockwood (engineering), M.S., Ohio State U.; Alan Middleton, (business management technology), M.S., Virginia Commonwealth U.; James Summerford (philosophy), Ph.D., Ohio State U.; Christine Wolfe, (computer science technology), M.S., Ohio State U.

Instr: Dee Anderson (English), B.A., Ohio State U.; Arthur Bickham (business management technology), M.B.A., Xavier U.; John Clay (physical education), B.G.S., Ohio U.; Anthony Davenport (art), M.F.A., SUNY, New Paltz; Terri Green (education), M.A., Ohio State U.; Lisa lacobellis (art history), M.A., Ohio State U.; Mike Kelley (computer science technology), M.A., Columbus State; Larry Lamb (electronics technology), M.S., Ohio U.; Becky Parrish, (mathematics), B.S., Ohio U.; Linda Taylor, (geology), M.S., U. of Wyoming; Daniel Trout (multimedia technology), B.S., Ohio U.; Paul Young (music), Ph.D., Ohio U.

## Southern Campus (ironton)

Assoc. Prof: Dean Christopher (hearing, speech and language sciences), Ph.D., Ohio State U.; Mikiko Crawford (interpersonal communication), Ph.D., Ohio U.; Lacey Strafford Curtis (psychology), Ph.D., Ohio U.; Dan L. Evans (dean, higher education), Ohio U.; David M. Lucas (communication), Ph.D., U. Ohio U.; Michael A. Millay (botany), Ph.D., U. of Illinois; Terrance Quinn (mathematics), Ph.D., Dalhousie U.

Asst. Prof: Janet M. Huntzinger (early childhood education), Ed.D., Oklahoma State U.; Charles Jarrett (sociology), Ph.D.; Ohio State U.; Rebecca F. McNeer (English), Ph.D., Ohio U.; Lacey Thompson (English), M.A., Ohio U.

Instr: Rena Allen (part-time), (education), M.A., Marshall U.; Donald Baker (math/electronic technology), Ph.D., Ohio U.; Danny Bentley (parttime), (biology), Ph.D., U. of Kentucky; Stephan D. Call (travel and tourism), M.S., Ashland U.; Anthony Corea (communications), M.S., Morehead State U.; Robert Culp (chemistry), Ph.D., U. of Alabama; Kelly Davidson (equine studies), M.S., U. of Kentucky; John Davis (part-time), (biology), D.D.S., Ohio State U.; Donna Dingus (part-time) (math), M.B.A., Ohio State U.; Bill Dingus (business administration) (emeritus, part-time), Ph.D., Ohio U.; Edward Duffy (parttime), (sociology), Ph.D., Duke U.; Ella Gannon (office technology), M.B.A., Morehead State U.; Steve Harvey (part-time), (chemistry), M.A., Marshall U.; William Larson (education), (parttime), Ph.D., Bowling Green State U.; Robert Leith (history), M.A., Union College; Connie Mays (math, equine studies), M.A., Marshall U.; Patrick McCoy (comparative arts/music), Ph.D., Ohio U.; Donald L. Moore, (telecommuncations), M.A., Ohio U.; William Rau (business), Ph.D., U. of South Carolina.; Ann Richards Logsdon (education), (part-time), M.A., Ohio U.; Janice Rosier (equine studies), (part-time), B.A., U. of Findlay; Kristin Rowan (chemistry), Ph.D., Oklahoma State U.; Ronald Sims (psychology), M.S., Ohio U.; Terry Spivey (part-time), (political science), M.A., Ohio U.; David Surgalski, (telecommunications), M.A., Ohio U.; Tom Suter

(fine arts), M.A., Miami U.; Gary Tillis (fine arts), M.A., Marshall U.; Mary Toothman (equine studies), D.V. M., Tuskegee U.; Mary L. Virgin (education counseling), M.A., Morehead State U.

#### Zanesville Campus

Prof: Richard J. Brumbaugh (emeritus, part-time), (chemistry), Ph.D., Ohio U.; James W. Fonseca (dean, geography), Ph.D., Clark U.; James E. Jordan (political science), Ph.D., U. of Michigan; Mark A. Shatz (psychology), Ph.D., U. of Florida; Sheida Shirvani (interpersonal communication), Ph.D., North Texas State U.; Parinbam K. Thamburaj (chemistry), Ph.D., Kent State U.; Gerald L.Westgerdes (fine arts), M.F.A., Otis Art Institute.

Assoc. Prof: John W. Benson (zoology), Ph.D., Michigan State U.; Melissa Bixler (emerita, parttime) (health education), Ph.D., Ohio State U., Thomas L. Bixler (emeritus, part-time), (physical education) M.Ed., Ohio U.; George Brooks (zoology), Ed.D., Ball State U.; Karen Brown (part-time), (modern languages), M.A., U. of Wisconsin; Judith A. Davis (emerita, part-time), (nursing) M.S., Ohio State U.; Sally J. Fusner (nursing), Ph.D., Ohio State U.; Shahrokh Ghaffari (chemistry), Ph.D., Oregon State U.; Deborah E. Henderson (nursing), Ph.D., Ohio U.; John R. Kelbley (emeritus, part-time), (English), M.A., Ohio U.; Michael J. Kline (history), M.A., Ohio U.; Mike Nern (English), M.A., Ohio U.; Robert A. Rider (emeritus, part-time), (mathematics), M.A., Bowling Green State U.; Vicki L. Sharrer (nursing), M.S., Ohio State U.; Rick Shriver (electronic media), M.A., Ohio U.; Sharon Staib (nursing), M.S., Ohio State U.; Thomas B. Stevenson (part-time), (anthropology), Ph.D., Wayne State U.; George L. Ware, III (emeritus, part-time), (English), M.A., Ohio U.

Asst. Prof: Beverly Bell (part-time), (education), Ph.D., Ohio U.; Timothy Blake (nursing), M.S., Ohio State U.; William P. Christy (fine arts), M.M., Ohio U.; Kenneth Collins (electronic media), Ph.D., Bowling Green State U.; John C. Durst (part-time), (sociology), Ph.D., The Ohio State U.; Mary Ann Goetz (nursing), M.S., U. of Maryland; Korcaighe Hale (history), Ph.D., Ohio U.; Janet Hammer (nursing), M.S. Wright State U.; Gloria Heine (part-time), (computer science), B.S., Ohio U.; James W. Hoefler (economics), M.A., Ohio U.; Sandra Jones (nursing), M.S., Otterbein C.; Stefan Jurasinski (English), Ph.D., Indiana U.; Pramod Kanwar (mathematics), Ph.D., Ohio U.; Craig D. Laubenthal (emeritus, part-time), (education), Ph.D., Michigan State U.; Frank LoSchiavo (psychology), Ph.D., *Ohio U.*; Chuan Liu (mathematics), Ph.D., *Ohio U.*; Rita Ng (interpersonal communication), Ph.D., *Indiana U.*; Viet Dung Nguyen (mathematics), Ph.D., Warsaw U.; Hannah L. Nissen (early childhood), Ph.D., Ohio State U.; Deborah Rostek (part-time), (biology), D.M.V., Ohio State U.; Pamela S. Sealover (nursing), M.S., Wright State U.; Alta Sims (part-time), (humanities), M.A., Kent State U.; Susan H. Stoner (part-time), (nursing), M.S., U. of Pennsylvania; Stacie L. Sweet (part-time), (nursing), M.S., Ohio State U.

**Instr:** Stacey Anker (part-time), (nursing), B.S.N., *Ohio U.*; Charles Savage (part-time), (music), M.M., *Ohio U.*; Linda Taylor (part-time), (geology), M.S. *U. of Wyoming*.

## **Ohio Residency**

It is the responsibility of the student to report a change of address and/or residency from an Ohio resident to a non-Ohio resident at the Office of Student Records. If the student's residency has changed to an Ohio resident, he or she must file a residency petition with the Office of Graduate Studies. No change of residency can be made until the residency petition has been approved by a University examiner. Questions concerning residency should be directed to the Office of Graduate Studies.

The residency rules described below were adopted by the Ohio Board of Regents effective November 1, 1989. The rules are subject to change without notice by the Ohio Board of Regents or the Ohio General Assembly.

#### A Intent and Authority

- 1 It is the intent of the Ohio Board of Regents in promulgating this rule to exclude from treatment as residents, as that term is applied here, those persons who are present in the state of Ohio primarily for the purpose of receiving the benefit of a state-supported education.
- 2 This rule is adopted pursuant to Chapter 119 of the Revised Code, and under the authority conferred upon the Ohio Board of Regents by Section 3333.31 of the Revised Code. Effective date: November 1, 1989.

#### **B** Definitions

For purposes of this rule:

- 1 A "resident of Ohio for all other legal purposes" shall mean any person who maintains a 12-month place or places of residence in Ohio, who is qualified as a resident to vote in Ohio and receive state welfare benefits, and who may be subjected to tax liability under Section 5747.02 of the Revised Code, provided such person has not, within the time prescribed by this rule, declared himself or herself to be or allowed himself or herself to remain a resident of any other state or nation for any of these or other purposes.
- 2 "Financial support" as used in this rule, shall not include grants, scholarships, and awards from persons or entities which are not related to the recipient.
- 3 An "institution of higher education" as used in this rule shall mean any university, community college, technical institute or college, general and technical college, medical college, or private medical or dental college which receives a direct subsidy from the state of Ohio.
- 4 For the purpose of determining residency for tuition surcharge purposes at Ohio's state-assisted colleges and universities, "domicile" is a person's permanent place of abode: there must exist a demonstrated intent to live permanently in Ohio, and a legal ability under federal and state law to reside permanently in the state. For the purpose of this policy, only one (1) domicile may be maintained at a given time.

5 For the purpose of determining residency for tuition surcharge purposes at Ohio's state-assisted colleges and universities, an individual's immigration status will not preclude an individual from obtaining resident status if that individual has the current legal status to remain permanently in the United States.

## C Residency for subsidy and tuition surcharge purposes

The following persons shall be classified as residents of the state of Ohio for subsidy and tuition surcharge purposes:

- 1 A dependent student, at least one of whose parents or legal guardian has been a resident of the state of Ohio for all other legal purposes for 12 consecutive months or more immediately preceding the enrollment of such student in an institution of higher education.
- 2 A person who has been a resident of Ohio for the purpose of this rule for at least 12 consecutive months immediately preceding his or her enrollment in an institution of higher education and who is not receiving, and has not directly or indirectly received in the preceding 12 consecutive months, financial support from persons or entities who are not residents of Ohio for all other legal purposes.
- 3 A dependent child of a parent or legal guardian, or the spouse of a person who, as of the first day of a term of enrollment, has accepted full-time, self-sustaining employment and established domicile in the state of Ohio for reasons other than gaining the benefit of favorable tuition rates.

Documentation of full-time employment and domicile shall include both of the following documents:

a a sworn statement from the employer or the employer's representative on the letterhead of the employer or the employer's representative certifying that the parent or spouse of the student is employed full-time in Ohio.

**b** a copy of the lease under which the parent or spouse is lessee and occupant of rented residential property in the state; a copy of the closing statement on residential real property located in Ohio of which the parent or spouse is the owner and occupant; or if the parent or spouse is not the lessee or owner of the residence in which he or she has established domicile, a letter from the owner of the residence certifying that the parent or spouse resides at that residence.

## D Additional criteria which may be considered in determining residency for the purpose may include but are not limited to the following:

- 1 Criteria evidencing residency:
- a if a person is subject to tax liability under Section S747.02 of the Revised Code;
- b if a person qualifies to vote in Ohio;
- c if a person is eligible to receive state welfare benefits;
- **d** if a person has an Ohio driver's license and/or motor vehicle registration.
- 2 Criteria evidencing lack of residency:
- a if a person is a resident or intends to be a resident of another state or nation for the purposes of tax liability, voting, receipt of welfare benefits, or student loan benefits (if the student qualified for that loan program by being a resident of that state or nation);
- **b** if a person is a resident or intends to be a resident of another state or nation for any purpose other than tax liability, voting, or receipt of welfare benefits. (See paragraph 2., a. of this rule.)

## E Exceptions to the general rule of residency for subsidy and tuition purposes

- 1 A person who is living and is gainfully employed on a full-time or part-time and self-sustaining basis in Ohio and who is pursuing a part-time program of instruction at an institution of higher education shall be considered a resident of Ohio for these purposes.
- 2 A person who enters and currently remains upon active duty status in the United States military service while a resident of Ohio for all other legal purposes and his or her dependents shall be considered residents of Ohio for these purposes as long as Ohio remains the state of such person's domicile.
- 3 A person on active duty status in the United States military service who is stationed and resides in Ohio and his or her dependents shall be considered residents of Ohio for these numbers.
- 4 A person who is transferred by his or her employer beyond the territorial limits of the 50 states of the United States and the District of Columbia while a resident of Ohio for all other legal purposes and his or her dependents shall be considered residents of Ohio for these purposes as long as Ohio remains the state of such person's domicile as long as such person has fulfilled his or her tax liability to the state of Ohio for at least the tax year preceding enrollment.

5 A person who has been employed as a migrant worker in the state of Ohio and his or her dependents shall be considered a resident for these purposes, provided such person has worked in Ohio at least four months during each of the three years preceding the proposed enrollment.

#### F Procedures

- 1 A dependent person classified as a resident of Ohio for these purposes under the provisions of paragraph (C) (1) of this rule and who is enrolled in an institution of higher education when his or her parents or legal guardian removes their residency from the state of Ohio shall continue to be considered a resident during continuous full-time enrollment and until his or her completion of any one academic degree program.
- 2 In considering residency, removal of the student or the student's parents or legal guardian from Ohio shall not, during a period of 12 months following such removal, constitute relinquishment of Ohio residency status otherwise established under paragraph (C) (1) or (C) (2) of this rule.
- 3 For students who qualify for residency status under paragraph (C) (3) of this rule, residency status is lost immediately if the employed person upon whom resident student status was based accepts employment and establishes domicile outside Ohio less than 12 months after accepting employment and establishing domicile in Ohio.
- 4 Any person once classified as a nonresident, upon the completion of 12 consecutive months of residency, must apply to the institution he or she attends for reclassification as a resident of Ohio for these purposes if such person in fact wants to be reclassified as a resident. Should such person present clear and convincing proof that no part of his or her financial support is or in the preceding 12 consecutive months has been provided directly or indirectly by persons or entities who are not residents of Ohio for all other legal purposes, such person shall be reclassified as a resident.
- **5** Any reclassification of a person who was once classified as a nonresident for these purposes shall have prospective application only from the date of such reclassification.
- 6 Any institution of higher education charged with reporting student enrollment to the Ohio Board of Regents for state subsidy purposes and for assessing the tuition surcharge shall provide individual students with a fair and adequate opportunity to present proof of his or her Ohio residency for purposes of this rule. Such an institution may require the submission of affidavits and other documentary evidence which it may deem necessary to a full and complete determination under this rule.

## Student Records Policy

## **Underlying Principles**

Ohio University's commitment to its educational mission and to the students and society it is obligated to serve demands that it maintain various records. No education records will be maintained that are not directly related to the basic purposes of the university. All policies and practices governing the collection, maintenance, review, and release of records will be based upon the principles of confidentiality and the student's right to privacy, consistent with the Family Educational Rights and Privacy Act of 1974. This policy shall govern the collection, maintenance, review, and release of student records on the Athens and regional campuses of Ohio University. A student is herein defined to mean any person for whom the university maintains education records or personally identifiable information, but does not include a person who has not been in attendance at the university or any of its regional campuses.

#### Types of Records

The university recognizes two general types of records: education records and unofficial records.

#### A Education Records

Education records are those records which are directly related to a present or former student in any form (e.g., print, electronic, microfilm, etc.), which contain information directly related to a present or former student, and which are maintained by the university or by a person acting for the university. Education records shall be subject to the principles regarding collection, maintenance, review, and release which are described below.

Education records include, but are not limited to, the following:

- 1 Admissions records maintained by the Office of Admissions, the College of Osteopathic Medicine, and the Office of Graduate Student Services. The director of admissions, the dean of the College of Osteopathic Medicine, or the associate provost for graduate and research programs are the official custodians of these records;
- 2 Academic records maintained by the dean of the student's college; academic departments; the Registrar's Office; and the Office of Lifelong Learning. The registrar, the deans of the colleges, or the chairpersons of the departments are the official custodians of these records;
- **3** Disciplinary records maintained by the University Judiciaries. The director of Judiciaries is the official custodian of these records:
- 4 Financial aid and student employment records maintained by the Office of Student Financial Aid and Scholarships. The director of the Office of Student Financial Aid and Scholarships is the official custodian of these records;
- **5** Placement records maintained by the Office of Career Services. The director of Career Services is the official custodian of these records;
- 6 Housing records, including contract and lease agreements, maintained by the Housing Office. The director of Housing is the official custodian of these records:
- 7 Financial records by offices which initiate, collect, and record fees assessed and paid;
- 8 International student records. The director of International Student and Faculty Services is the custodian of these records:

**9** Any and all other records not specifically designated as unofficial records under subsection b., maintained by a university office or agency as essential to fulfilling the basic purpose and responsibility of the office or agency. The university official responsible for that office or agency is the official custodian of these records.

#### **B** Unofficial Records

Unofficial records include:

- 1 Records of institutional, supervisory, and administrative personnel, and faculty and education-al personnel ancillary thereto which are in the sole possession of the maker thereof and which are not accessible by or revealed to any other person except a substitute. A substitute means an individual who performs on a temporary basis the duties of the individual who made the record and does not refer to an individual who permanently succeeds the maker of the records in his or her position;
- 2 Records and documents of the Department of Campus Safety, provided that the records and documents are kept apart from the records described in subsection a. of this section, which are maintained solely for law enforcement purposes, and which are not available to persons other than law enforcement officials of the same jurisdiction or other university law enforcement personnel;
- 3 In the case of persons who are employed by the university but who are not in attendance, records made and maintained in the normal course of business which are related exclusively to such person in his or her capacity as an employee and which are not available for use for any other purpose;
- 4 Records which are created or maintained by a physician, psychiatrist, psychologist, or other recognized professional or paraprofessional acting in his or her professional capacity, and which are created, maintained, or used only in connection with the provision of treatment to the student, and which are not available to anyone other than persons providing such treatment; provided, however, that such records can be personally reviewed upon written notice by the student, by a physician, or by other appropriate professional of the student's choice;
- 5 Directory information, including the student's name, address, telephone number, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, most recent previous

educational agency or institution attended by the student, and other similar information; subject, however, to the limitation stated under the Release of Student Records section below.

#### Maintenance of Records

Education records shall be maintained only by university administrative personnel assigned responsibility for each of the types of records listed in the Types of Records section above. All university personnel involved in the handling and maintenance of education records shall be instructed concerning the confidential nature of such information and their responsibilities regarding it, pursuant to this policy and the Family Educational Rights and Privacy Act of 1974. This instruction should be a part of each office's orientation procedure.

## Persons Authorized to Place Materials in Records Files

Only the following qualified persons are permitted to place information in an education records file: personnel in the office or agency responsible for maintaining the files, and the individual student or others at the request of and, therefore, with the consent of the student.

#### Challenging or Removing File Contents

A student has the right to a formal hearing, pursuant to and in compliance with sections 99.20 through 99.22 of the Regulations to the Family Educational Rights and Privacy Act of 1974, to challenge the content of such student's education records in order to ensure that the records are not inaccurate, mis-leading, or otherwise in violation of the privacy or other rights of students, and to provide an opportunity for the correction or deletion of any such inaccurate, misleading, or otherwise inappropriate data contained therein, and to insert into such records a written explanation respecting the content of such records.

However, the student shall first attempt to informally resolve his or her grievance through the department chair, dean of his or her college, or, in the case of other records, through the administrative officer responsible for maintaining the records. The office responsible for maintaining the records may charge a reasonable fee, but not more than \$2 per page, for the reproduction of the records. The department chair, dean, or administrative officer, after careful review of the facts surrounding the challenge, shall inform the student, in writing and within five (\$) days after the student presents the challenge, of his or her decision and any corrective action that will be taken.

If the student is dissatisfied with the results of his or her informal challenge through the department chair, dean, or administrative officer, he or she shall then file a formal complaint.

#### **Student Access to Records**

A student who is or has been in attendance at Ohio University shall have the right to inspect and review the contents of his or education records, subject only to reasonable arrangements concerning time, place, supervision, and cost of reproduction of the records, but in no case shall the time be more than thirty (30) days after a request has been made. Costs of each reproduction shall not be greater than \$2 per page.

Exceptions to this general right of review are:

- a Confidential financial records of the student's parents or any information contained therein;
- **b** Confidential letters and statements of recommendation, which were placed in the education records prior to January 1, 1975, as long as such letters or statements are not used for purposes other than those for which they were specifically intended, as determined by the administrative officer responsible for the office or agency where the record is kept;
- c Unauthorized access to computer/electronic files;
- d If the student has signed a waiver of the student's right of access under this section and the Family Educational Rights and Privacy Act of 1974, confidential recommendations respecting admission to any educational agency or institution, respecting an application for employment, or respecting the receipt of an honor or honorary recognition.

A student or a person applying for admission may waive his or her right of access to confidential statements described in subsection b. of this section, except that such waiver shall apply to recommendations only if the student is, upon request, notified of the names of all persons making confidential recommendations, and such recommendations are used solely for the purpose for which they were specifically intended. The student may revoke, in writing, the previous waiver of his or her right to access to confidential statements or recommendations. Such revocation shall only apply to confidential statements or recommendations placed in the record after the waiver has been revoked. Such waivers may not be required as a condition for admission to, receipt of financial aid from, or receipt of any other services or benefits from the university.

#### Release of Student Records

Student records at Ohio University are held in trust by the university for the mutual benefit of the student and the educational mission of the university. Therefore, except with the prior written consent of the student, or as otherwise stated below, no information in any student education record file may be released to any individuals or organization.

- a Record-keeping personnel may have access to student education records according to the conditions stipulated in the Maintenance of Records section above.
- **b** Members of the faculty and staff and other persons demonstrating a legitimate educational interest may have access to student education records for internal educational purposes or for necessary administrative and statistical purposes only. The legitimate educational interest will be determined by the university official responsible for the particular student's education record. Legitimate educational interest is used here in its traditional and classical sense. It means that, in order to serve students and the university, careful, considerate, and responsible judgments must be made by professional people who are responsible and accountable for these judgments. The rights of grievance and appeal are available to the student through the responsible official.

- Direct access to financial, medical, psychological, and placement files is limited to the professional and clerical staff responsible for those matters.
- The following information will be considered public and may be published in a university publication: the student's name, address, telephone number, date and place of birth, major field of study, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, the most recent previous educational agency or institution attended by the student, and other similar information. Relative to such public or directory information, the university shall give public notice of the categories of information which shall be considered public information, and shall allow a reasonable period of time after such notice has been given for a student to inform the university that all of the information designated should not be released without the student's prior consent.
- e Direct access to disciplinary files is limited to the staff of the Office of Judiciaries and the Office of Legal Affairs, and the dean of students and his or her immediate staff. This section shall not be construed so as to prohibit the Office of Legal Affairs from advising appropriate university offices that demonstrate a legitimate educational interest in the facts and disposition of a particular disciplinary case, nor shall it be construed so as to prohibit the Office of Judiciaries from advising any person demonstrating a need to know as to whether a disciplinary file does or does not exist.
- f Medical and psychological information is legally confidential and privileged. It will not be released to anyone without the express written authorization of the individual involved. In such cases, the individual must designate what information is to be released and to whom that information is to be released.
- **g** Notwithstanding the provisions of subsections a-f of this section:
- 1 Education records will be released on compliance with a judicial order, or pursuant to any lawfully issued subpoena, upon condition that the student is reasonably notified of all such orders or subpoenas in advance of the compliance therewith by the university.
- 2 Records, or information from records containing personally identifiable information, may be made available to officials of other schools or school systems in which the student seeks or intends to enroll, upon condition that the student be notified of the transfer, receive a copy of the records if desired, and has an opportunity for a hearing to challenge the content of the record.
- **3** Records or information from records containing personally identifiable information may be released in connection with a student's application for or receipt of financial aid.
- 4 Records or information from records may be released to the parents of a dependent student, as defined in Section 152 of the Internal Revenue Code of 1954. The university presumes for this purpose only that all students are independent. The parents of a student have the burden to show dependent status as defined in Section 152 of the Internal Revenue Code of 1954.
- **5** Records or information from records may be released to the categories of persons or institutions designated in Section 438(b)(1)(C), 438(b)(1)(E), and 439(b)(3) of the Family Educational Rights and Privacy Act of 1974, and sections 99.30(a)(2), and 99.31 through 99.36 of the regulations thereto.
- **6** Records or information from records may be released to organizations conducting studies for or on behalf of educational agencies or institutions for the purpose of developing, validating, or administering predictive tests; administering student aid programs; and

improving instruction, if such studies are conducted in such a manner as will not permit the personal identification of students and their parents by persons other than representatives of such organization, and such information will be destroyed when no longer needed for the purposes for which it was released.

- **7** Records or information from records may be released to accrediting organizations in order to carry out their accrediting functions.
- 8 Records or information from records may be released to appropriate persons if the knowledge of such information is necessary to protect the health or safety of the student or other persons.
- 9 The university officials responsible for implementing the Student Records Policy and ensuring compliance with the Family Educational Rights and Privacy Act of 1974 are the vice president for administration with the assistance of the dean of students and the director of legal affairs. The university ombudsman may examine all education records of a student upon authorization by the student or the director of legal affairs.

#### **Record of Access**

Each office shall keep with the education records of each student a record which will specifically indicate the legitimate interest that each such person, agency, or organization, other than other school officials and persons designated in the Release of Student Records section above, has in obtaining this information. Such record of access shall be available only to the student, the school official, and his or her assistants who are responsible for the custody of such records, and to persons or organizations authorized to conduct an audit pursuant to the Family Educational Rights and Privacy Act of 1974. The record should include the name of the individual or agency requesting information, reason for the request, date of the request, and the disposition of the request. The office responsible for the records shall, upon a request in writing by the student, provide a copy of the records disclosed and charge the appropriate fees therefore. Education records or information therefrom shall be transferred to a third party only on the condition that such party will not permit any other party to have access to such information without the written consent of the student.

#### Retention of Records

Each recordkeeping office will establish and make available a reasonable and justifiable policy regarding the retention of records after the separation of the student from the university. Where legal statutes govern retention, such policies shall be in accordance with those statutes.

#### Holds on Release of Records

Unmet university financial obligations or pending disciplinary cases may result in a hold being placed on the release of student records. The office originating the hold must inform the student in writing that it has initiated such action. Copies of hold notices will be maintained by the originating office or agency and will serve as verification that written notification has been provided to the student.

#### Incorporation of Federal Law

The Family Educational Rights and Privacy Act of 1974, and the regulations enacted in pursuance thereof, are hereby incorporated by reference into this policy, and to the extent that this policy conflicts with the law and/or regulations, the law and/or regulations shall take precedence.

Index

### Index

## a

Academic misconduct 21-22 Academic policies and procedures 15-22 Accounting 85-86 Acting 145-146 Admission (see also specific colleges and programs) 4-7 Categories <-6 Faculty and administrators 7 International students 6-African American Studies 35 African and Asian Languages 49 African Studies 183-184 Anthropology 35-36 Art 132 Art Education 133, 134 Art History 133, 134 Arts and Sciences, College of 34-82 Athletic Training Education 175-176 Audiology (see Hearing, Speech and Language Sciences)

## b

Auditing classes 20

Bacteriology (see Biological Sciences)
Biochemistry 39–41
Biological Sciences 36–39
Black Studies (see African American Studies)
Business, College of 83–88
Administration 81–83
Accounting 83–84

### $\mathsf{C}$

Calendar, academic (inside front cover)
Cancellation of registration 20
Career Services 23
Center for International Studies 182–188
Ceramics 132–134
Certificate programs 32
Conservation Biology 42
Contemporary History 42–43

Gerontology 154 Health Care Services Administration Health Policy 156-157 Women's Studies 82 Chemical Engineering 117-118 Chemistry and Biochemistry 39-41 Child and Family Studies 165, 166 Civil Engineering 119-120 Class schedule 33 Changes to 20 Classics and World Religions 41-42 Classics in English 41 Colleges 30-31 Arts and Sciences 34-82 Business 83-88 Communication 89-100 Education 101-115 Engineering and Technology 116-131 Fine Arts 132-152 Health and Human Services 153-181 Osteopathic Medicine 191 College Student Personnel 101 Commencement 22 Communication, College of 89-100 Communciation and Development Studies 184-185 Communication Studies 89-92 Comparative Arts (see Interdisciplinary Computer Science 63, 120-122 Computer Services 23-24 Conservation Biology Certificate 42 Contemporary History Certificate 42-43 Counseling and Psychological Services 24 Counselor Education 102-105 Course listings guide 33

## d

Credit

Hours 33

Transferring IT

Cultural events and entertainment 24
Curriculum and Instruction (Ed.) 111–113

Dance 137–138
Diploma, replacement of 21
Directing (theater) 146–147
Diversity, commitment to 2
Doctoral degrees 17–19
Dropping a class 20

Early Childhood Education and Family Studies 165

Economics 43-45

Education

College of 101-115 College Student Personnel 105-106

Computer Education/Instructional

Technology 108-109

Counselor Education 102-105

Cultural Studies 109-110

Curriculum and Instruction III-II3 Educational Administration 107-108

Educational Leadership III

Higher Education 105-107

Music 140

Professional Lab. Experience 115 Research and Evaluation 110-111

Special Education 113-114

Electrical Engineering and Computer Science 120-126

Employment, student 13-14

Engineering and Technology, Russ College of 116-131

English 45-47

English as a Second Language 67

Environmental and Plant Biology 48-49

Environmental Studies 49

Exercise Physiology 177-178

Executive M.B.A. 85

Foreign Languages and Literatures 49-53

Chinese 50

French 51

German 51

Greek 52-53

Indonesian/Malaysian 50

Italian 52

Japanese 50

Latin 53

Russian 52

Southeast Asian Lit. in English 50

Spanish 52

Swahili 50

French 51

Geography 53-55

Geological Sciences 55-56

German 51

Germanic, Romance and Slavic

Languages 50-51

Gerontology Certificate 154

Grading 15-16

Graduate Council (inside front cover), 24

Graduate program, early admission 6

Graduate Student Senate 24-25

Graduation ceremonies 22

Greek 52-53

Identification card 19-20

Individual Interdisciplinary Programs 189

Indonesian/Malaysian languages 50

Industrial and Manufacturing Systems

Engineering 126-128

Information Center 26

Institutional Equity 26-27

Insurance, medical 8-9, 25

Integrated Engineering 128

Intellectual Property Policy 22

Interior Design 167

Interdisciplinary Arts 135-137

International Studies, Center for 182-188

International Development

Studies 185-187

Interpersonal Communication (see

Communication Studies)

Italian 52



Japanese 50

Journalism 95-96

Faculty 192-199

Family Studies 165

Fees 8-9

Film 138-140

Finance 86

Financial aid 10-14

Graduate appointments 10-11 Graduate assistance 14

Award notification and

disbursement 12 Employment 13-14

Scholarships 11

Student loans 13 Traineeships and fellowships II

Fine Arts, College of 132-152

Food and Nutrition 165-168

Harassment 26-27

Health and Human Services,

College of 153-181

Health Care Services Administration 32,

155-156

Health Policy Certificate 32, 156-157

Health Sciences 157-159

Health Service, Student 25

Hearing, Speech and Language

Sciences 159-164

History 56-62

Housing 25-26

Human and Consumer Sciences 164-168

Human Resource Management 87

Languages (see Foreign Languages and Literatures)

Late registration and late payment 21

Latin 53

Latin American Studies 187

Libraries 27-28

Lifelong Learning 190

Linguistics 62-63

Loans 13



Malaysian/Indonesian languages 50

Management 87

Management Information Systems 87
Marketing 87–88
Mathematics 03 00
Mass Communication 07
Master's degrees 10–17
M.B.A. 83–83
M.B.A. Without Boundaries 83
Mechanical Engineering 129–131
Medical insurance 8–0, 23
Medical services (see Student Health Service)
Mission statement, Ohio University 2
Modern Languages 31

Molecular and Cellular Biology 36, 66-67

Motor vehicles 28

Music 140-143

Composition 141

Education 140, 142

History and Literature 141

Performance 141

Performance Certificate 141

Theory 141, 143 Therapy 140-142

## n

Nursing 168-170

## O

Ohio Program of Intensive English (OPIE) 67–69

Ohio residency guidelines 9, 200-201

Ombuds 28

Osteopathic Medicine, College of 191

## p

Painting 132-135

Parking 28

Payment of fees 8-9

Personal information, changes to 21

Philosophy 69-70

Photography (see also Visual Communication) 132–133, 135

Physical Education 180–181
Physical Therapy 170–174
Physics and Astronomy 70–73
Plant Biology 48–40
Playwriting 147–148
Political Science 73–75
Prerequisites 33
Printmaking 132–133, 135
Production Design and Technology (theater) 140–150
Professional Lab Experience (Ed.) 115
Psychological Services, Counseling 24
Psychology 75–78

## q

Quantitative Business Analysis 88

## r

Records, student 202-203

Recreation

Campus 28–29 and Sport Sciences 175–176 Studies 176

Recreation and Sport Sciences, School of 174-181

Refund of fees 9

Registration 19–20 Fees 8, 21

Replacement of Diploma 21

Research and Sponsored Programs, Office of 28

Research using human subjects 22

Residence Services 25-26

Residency guidelines, Ohio 9, 200-201

Retail Merchandising 161

Russian 52

## S

Schedule changes 20 Scholarships 11–12 Sculpture 132–133, 135 Services for students 23-29 Sexual harassment 26-27 Social Sciences -8 Social Work 78-79 Sociology 80-81 Southeast Asian Literatures in English so Southeast Asia Studies 187-188 Spanish 32 Special Education 113-114 Speech Language Pathology (see Hearing, Speech and Language Sciences) Sports Administration 178-179 Student Health Service 25 Student records 202-203 Student Senate, Graduate 24-25 Swahili so

## t

Telecommunications 97–99
Telephone numbers 3

Theater 143-152

Actor Training Program 145-146 Director Training Program 146-147 History and Criticism 144-145 Playwriting Program 147-148 Production Design and Technology 149-150

Transcripts 21

Transfer of credit 17

## V

Visual Communication 99-100

## W

Withdrawal from the University 21 Women's Studies 82 Women's Studies certificate 32, 82

Notes

Notes









